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2005 Outlook of the U.S. and World Sugar Markets, 2004-2013

Won W. Koo
Richard D. Taylor

Center for Agricultural Policy and Trade Studies
Department of Agribusiness and Applied Economics
North Dakota State University
Fargo, North Dakota 58105-5636

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Abstract

This report evaluates the U.S. and world sugar markets for 2004-2013 using the Global Sugar Policy Simulation Model. This analysis is based on assumptions about general economic conditions, agricultural policies, population growth, weather conditions, and technological changes.

Both the U.S. and world sugar economies are predicted to improve slightly over the next 10 years after the current over-supply is reduced. World demand for sugar is expected to grow faster than world supply, resulting in Carribean sugar prices gradually increasing from 8.40 cents/lb in 2004 to 8.70 cents/lb in 2013. The U.S. wholesale price of sugar is projected to decrease from 26.15 cents/lb in 2004 to 24.89 cents/lb in 2013, if the United States maintains its sugar programs. The CAFTA agreement is expected to increase U.S. imports slightly, but with little impact on U.S. prices. It is projected that Mexico will be able to export 405 thousand metric tons of sugar to the United States by 2013. World trade volumes of sugar are expected to increase throughout the forecast period.

Keywords: sugar, production, exports, consumption, ending stocks

Highlights

Total world sugar trade is projected to increase by 19.3% between 2004 and 2013 from 28.5 million metric tons to 34.0 million metric tons. Brazil's exports are projected to increase from 18.1 million metric tons in 2004 to 21.4 million metric tons in 2013. World sugar prices also are projected to increase from 8.40 cents/lb in 2004 to 8.70 cents/lb in 2013. U.S. sugar price is projected to decrease from 26.1 cents/lb in 2004 to 24.89 cents/lb in 2013 if the U.S. sugar programs are maintained.

U.S. sugar imports are predicted to increase 11.8% over the 2004-2013 period due to increased sugar imports from Mexico. U.S. sugar consumption is projected to increase 8.3%. Ending stocks are predicted to decrease 15.6%.

Canada's production is predicted to increase 29.4% from 2004 to 2013. Canada's imports are expected to increase 16.0%. Consumption is predicted to increase 13.9%, and ending stocks are predicted to decrease 48.0%.

Mexico's production is expected to increase 15.2%, and exports are expected to increase to 0.4 million metric tons by 2013 due to increases in exports to the United States under the North American Free Trade Agreement (NAFTA).

The European Union's (EU) exports are predicted to decrease 50.3% under the assumption that their sugar program does not change. With the additional countries included in the EU, they will not have the excess sugar to export. Their production and consumption are predicted to increase slightly.

Production in India is predicted to increase 23.4%, while consumption is predicted to increase 10.8% for the 2004-2013 period. India should import about 0.7 million metric tons by 2013.

Exporting countries, such as Australia and South Africa are predicted to increase their production and exports during the forecasting period.

Most importing countries, including Algeria, China, Japan, and Korea, are predicted to increase their imports for the 2004-2013 period.

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INTRODUCTION

Sugar is produced in over 100 countries worldwide. In most years, over 70% of world sugar production is consumed domestically, implying that only a small portion of production is traded internationally. A significant share of this trade takes place under bilateral long-term agreements or on preferential terms such as the European Union's (EU) Lome Agreement. Since only a small proportion of world production is traded freely, small changes in production and government policies tend to have large effects on world sugar markets. As a result, sugar prices have been very unstable in the world market.

This report evaluates the U.S. and world sugar industry for 2004-2013 using the Global Sugar Policy Simulation Model developed by Benirschka et al. (1996). The outlook projection is based on an assumption that farm and trade policies adopted by sugar exporting and importing countries remain unchanged.

Sugarcane is a perennial grass that is produced in tropical and subtropical climate zones. It matures in 12 to 16 months. Once the cane is harvested, the sucrose starts breaking down. Thus, sugarcane mills are located close to the cane fields to minimize transport costs and sucrose losses. Mills convert sugarcane into raw sugar which is shipped to refineries for further processing. In contrast to raw sugar producing mills, refineries are unconstrained by seasonal production patterns and operate throughout the year. Unlike sugarcane, sugarbeets are an annual crop of temperate climate zones. Because of disease problems, sugarbeets are always grown in crop rotations. Since sugarbeets are bulky and costly to transport, beet processing facilities are located close to production. In contrast to sugarcane, sugarbeets are directly processed into refined sugar. Raw sugar is produced only from sugarcane.

Raw sugar and refined sugar are two different products. They are both traded internationally. Beet sugar producing countries export refined sugar, while cane sugar producing countries export either raw or refined sugar. In recent years, the share of raw sugar in total sugar exports has been about 50%.

OVERVIEW OF THE WORLD SUGAR INDUSTRY AND SUGAR POLICIES

For the 2000-2004 period, annual global sugar production was approximately 139 million metric tons with about 30% of production exported from its country of origin. The largest sugar producing region is Brazil, followed by India and the EU (Table 1).

*Professor of Agribusiness and Applied Economics and Director and Research Scientist, respectively, in the Center for Agricultural Policy and Trade Studies at North Dakota State University, Fargo.

Table 1. World Sugar Supply and Utilization, 2000 to 2004 Average

Country/ Region	Beet/ Cane	Consumption	Production	Net Exports	Ending Stocks	Per Capita Consumption
		----------1,000 metric tons, raw value-----------				
Algeria	B	1,036	0	(1,088)	298	34
Australia	C	1,132	5,038	3,827	582	61
Brazil	C	9,665	22,697	12,990	767	56
Canada	B	1,339	91	(1,255)	188	45
China	B/C	10,202	9,338	(859)	1,763	9
Cuba	C	702	2,952	2,284	253	61
European Union	B	14,863	18,172	3,281	3,595	49
Egypt	B/C	2,201	1,381	(816)	293	33
Former Soviet Union	B/C	11,007	3,773	(6,942)	2,715	37
India	C	18,939	18,726	233	9,999	17
Indonesia	C	3,358	1,775	(1,594)	1,268	16
Japan	B/C	2,265	825	(1,479)	381	18
Korea	-	1,248	0	(1,251)	104	26
Mexico	C	5,122	5,270	79	1,263	49
South Africa	C	1,594	2,664	1,057	594	37
Thailand	C	1,867	6,340	4,490	784	31
United States	B/C	9,047	7,755	(1,337)	1,729	31
Rest of World	B/C	39,352	32,143	(11,619)	9,977	18
World	B/C	134,938	138,938		36,554	20

Per capita sugar consumption was highest in Cuba and Australia (61 kg), followed by Brazil. Per capita sugar consumption in the United States was 31 kg, which was above world average per capita consumption (20 kg). Per capita sugar consumption was lowest in China at 9 kg per capita, but that may increase substantially as per capita income increases. Annual global sugar consumption for the 2000-2004 period was 135 million metric tons.

The major sugar exporting countries were Brazil, Thailand, Australia, the EU, and Cuba. These countries accounted for 85% of global exports from 2000 to 2004. Relatively few countries dominate world sugar exports, but imports are less concentrated. Major importing countries were the Former Soviet Union (FSU), Indonesia, the United States, Japan, Korea, and Canada. Imports by these countries accounted for about 44% of all sugar imports from 2000 to 2004. Under the Lome Convention, the EU was required to import sugar under preferential terms from certain African, Caribbean, and Pacific countries.

The Caribbean raw sugar price is usually considered to be the world market price for sugar. Except for years with high world market prices, there was a substantial wedge between the U.S. wholesale price of raw sugar and the world market price. Over the last decade, U.S. wholesale prices fluctuated between $0.22 and $0.29 per pound. World market prices ranged between $0.06 per pound and $0.13 per pound (Figure 1). Both real Caribbean raw sugar prices and U.S. raw sugar import prices have long-term downward trends.

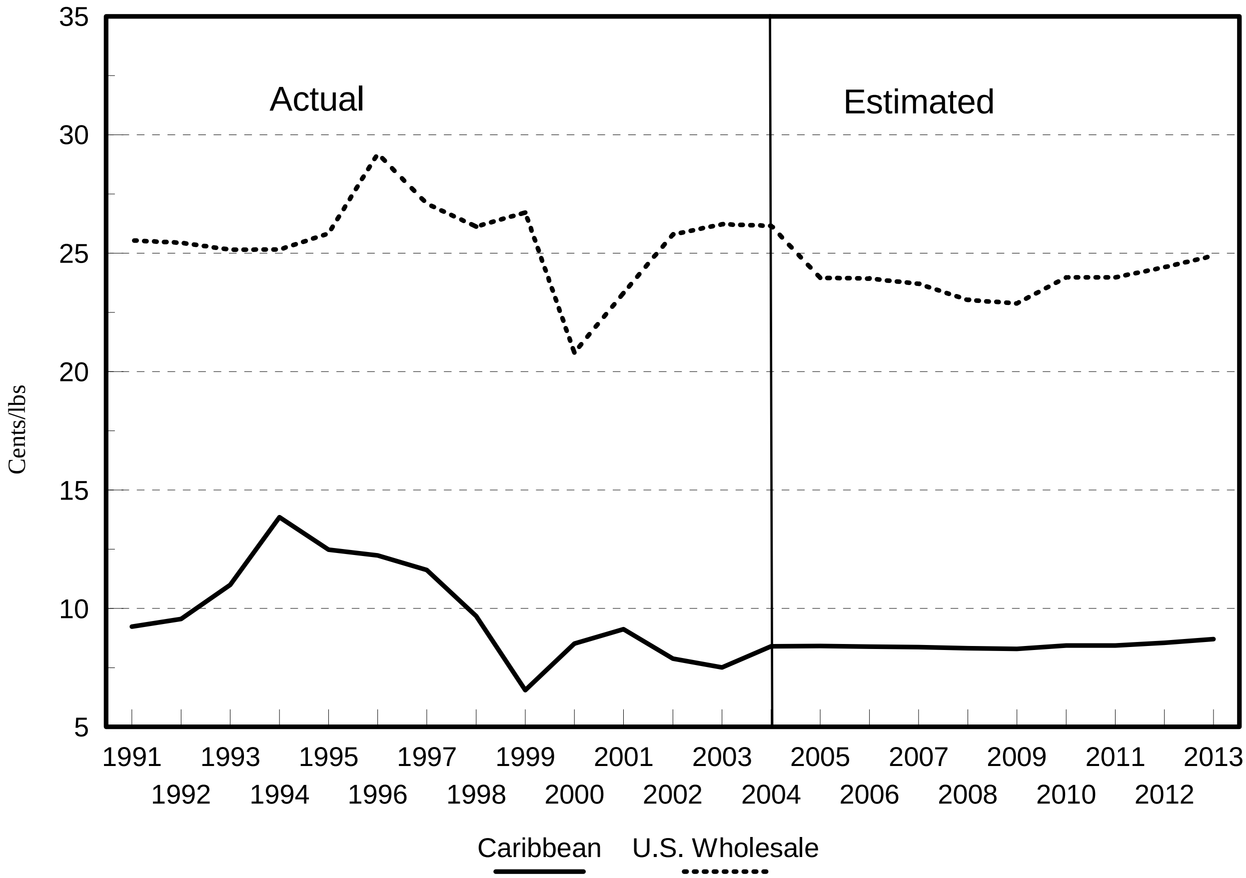

Figure 1. U.S. and World Sugar Price

The volatility of world sugar prices could be due to the nature of supply response to price changes stemming from high fixed costs of sugar production. An increase in sugar production in response to rising sugar prices requires significant investments in processing facilities, and it takes some time until new production capacity becomes available. Once the facilities are in place, they tend to be used at full capacity to spread the fixed costs. Thus, when prices fall, production remains at full capacity. Sugar production is relatively unresponsive to price in the short run.

The United States produces both beet and cane sugar. Cane sugar is produced mainly in Florida, Louisiana, Texas, and Hawaii. Beet sugar is produced largely in the Great Lakes region, Upper Midwest, Great Plains, and far western states. Beet sugar production increased 17.8% from the 1991 to 2004, while cane sugar production increased 24% (Figure 2). U.S. total sugar production increased about 21% from 7.0 million metric tons in 1991 to 8.5 million metric tons in 2004 (Figure 3).

U.S. consumption of sugar also increased 15% from 7.8 million metric tons in 1991 to 9.0 million metric tons in 2004 (Figure 4). The balance was imported from more than 40 countries. U.S. sugar imports decreased 71% from 4.5 million metric tons in 1974 to 1.3 million metric tons in 1987 and then increased to an average of 1.7 million metric tons during the 1989 to 2004 period. Under the North American Free Trade Agreement (NAFTA), Mexico can export 260,000 metric tons of sugar to the United States if Mexico becomes a sugar surplus country for two consecutive years, and its exports to the United States will be unlimited beginning in 2008 when implementation of NAFTA is completed. Currently, Mexico is exporting less than 100 thousand metric tons of sugar into the United States, due to production shortages. If the U.S.-Central American Free Trade Agreement (CAFTA), which is a free trade agreement (FTA) currently with five Central American countries, is ratified by the U.S. Congress, additional sugar imports allowed would initially be 107 thousand metric tons, increasing by about 3,000 metric tons per year.

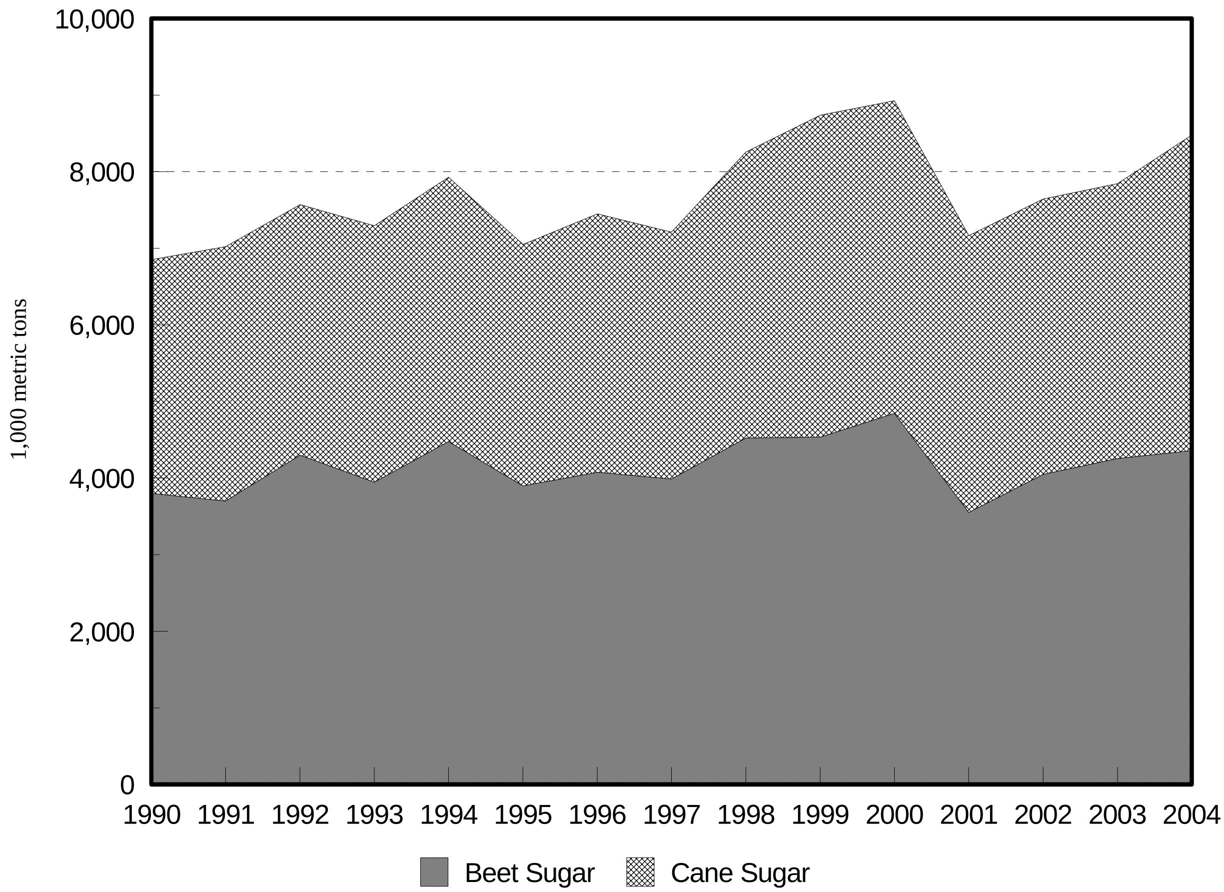

Figure 2. U.S. Beet and Cane Sugar Production

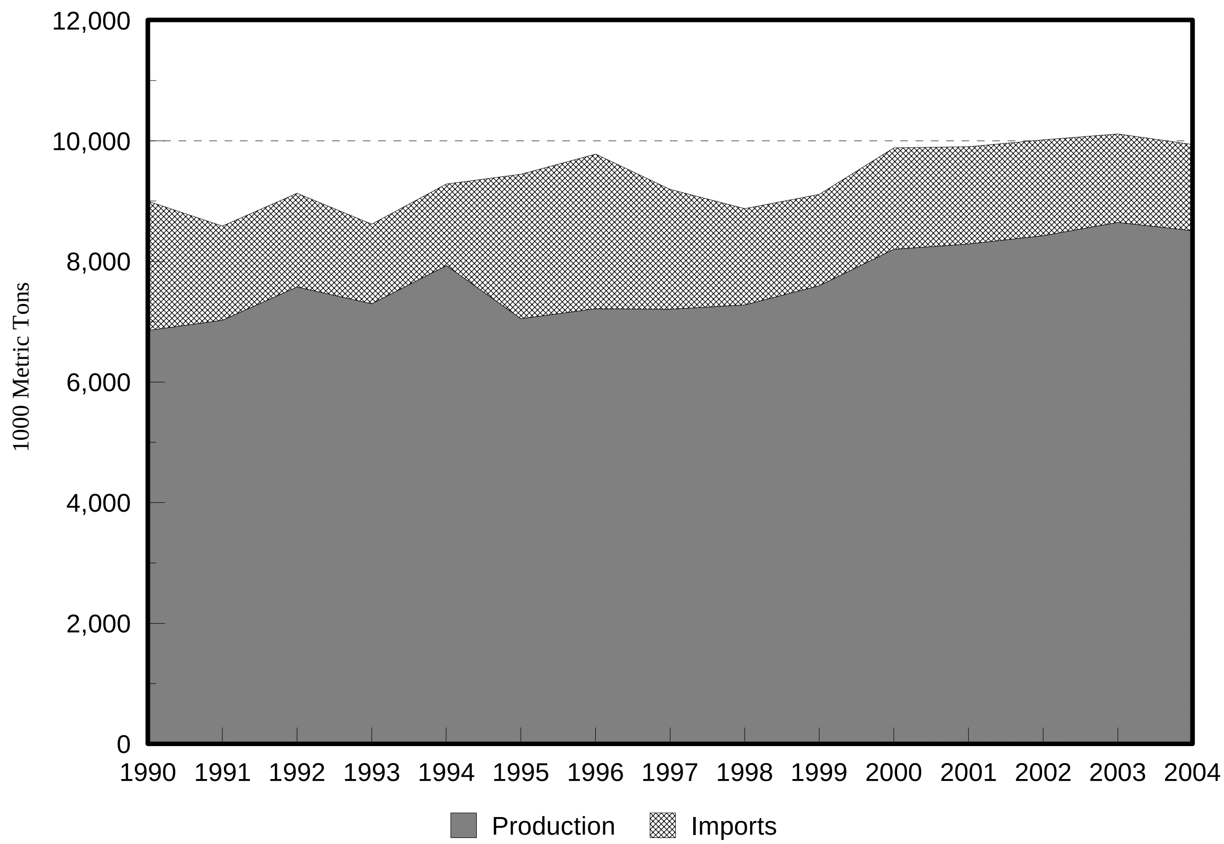

Figure 3. U.S. Sugar Production and Imports

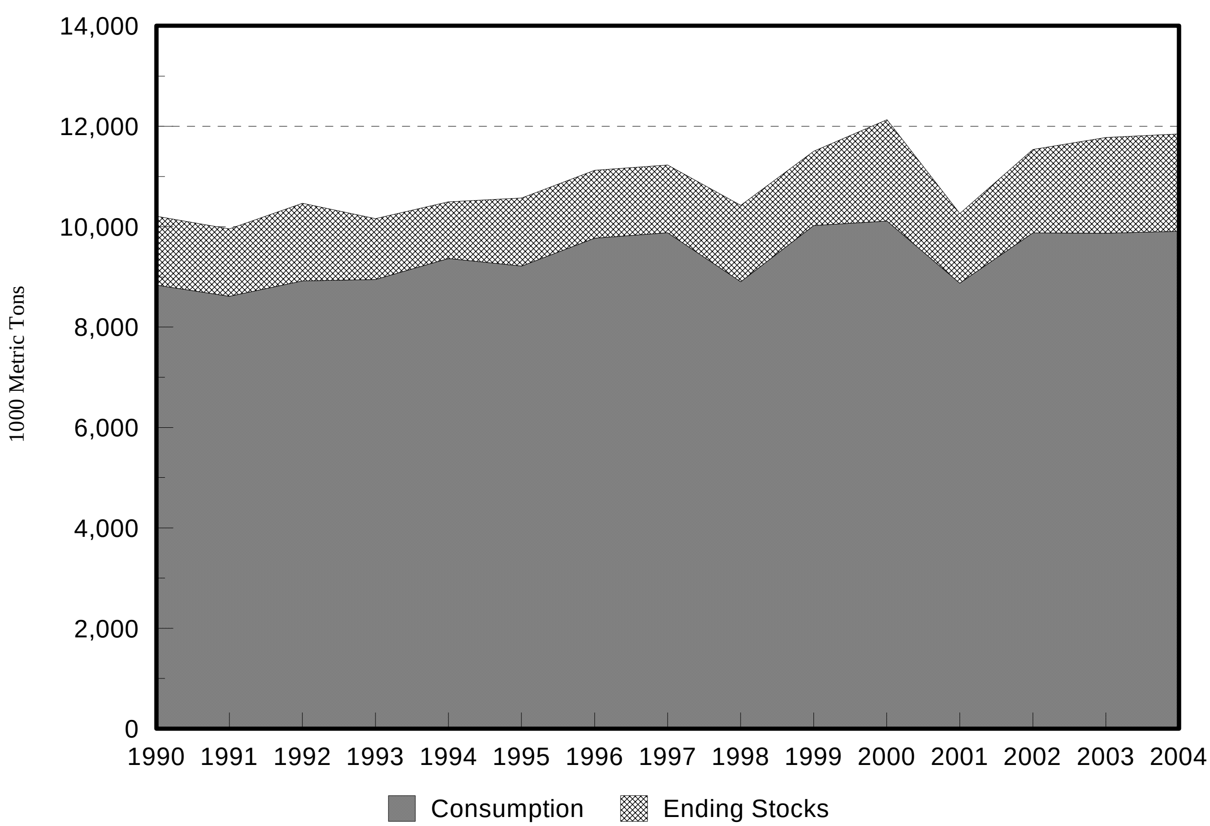

Figure 4. U.S. Consumption and Ending Stocks

U.S. Sugar Programs and Policies

The U.S. sugar program was established by the Food and Agricultural Act of 1981. Several modifications were made by the Food Security Act of 1985; the Food, Agriculture, Conservation, and Trade Act of 1990; the Federal Agriculture Improvement and Reform Act of 1996; and the Farm Security and Rural Investment (FSRI) Act of 2002.

The core policy tools in the program are the loan program, import restrictions, and production allotments. The main purpose of the loan program is to maintain a minimum market price for U.S. producers. Processors use sugar as collateral for loans from the U.S. Department of Agriculture (USDA). The program permits processors to store the sugar rather than sell it for lower than desired prices. Loans can be taken for up to nine months. Processors pay growers for delivered beets and cane, typically about 60% of the loan. Final payments are made and the loan is repaid after the sugar has been sold.

Under the FSRI Act, the sugar loan rate is set at 18 cents per pound for raw cane sugar and 22.9 cents per pound for refined beet sugar. Loans under the FSRI Act become recourse loans if the tariff rate quota (TRQ) is at 1.5 million metric tons or below, regardless of the price. When the TRQ is set above 1.5 million metric tons, the loans are nonrecourse. Under the nonrecourse loan, a processor can forfeit collateral (sugar) to the Commodity Credit Corporation (CCC) instead of loan repayment if market prices fall below the loan rates. Processors who obtain a nonrecourse loan must pay farmers an amount for their sugarbeets and sugarcane that is proportional to the loan value of sugar. This is the same as under previous legislation.

The Uruguay Round Agreement (URA) on agriculture made minor adjustments for sugar trade. U.S. import quotas on sugar were converted into TRQs, implying that a specified amount of sugar can be imported at the lower of two alternative duty rates. The amount of raw cane sugar subject to the lower duty rate must be no less than 1,117,195 metric tons in a fiscal year. The minimum low-duty import of refined sugar is 22,000 metric tons. The minimum low-duty imports for raw and refined sugar add up to 1.256 million metric short tons raw value of sugar per year. The high duty (about 15.82 cents per pound) is imposed on the amount of sugar imported over the import quota. The first-tier duty ranges from zero to 0.625 cents per pound.

The second tier-duty for raw cane sugar was reduced from 17.62 cents per pound in 1995 to 15.82 cents per pound in 2000 under the URA. The duty for refined sugar was reduced from 18.6 cents per pound in 1995 to 16.21 cents per pound in 2000. The quota was the same level throughout the 1995 to 2000 period.

The sugar quota has been allocated among more than 40 quota-holding countries, allowing imports of specific quantities of sugar at first-tier duty rates. The quota allocation is based on historical exports to the United States for the 1975 to 1985 period.

NAFTA allows a rapid reduction in the second-tier duty for Mexican sugar over the next several years. The second-tier duty for Mexican sugar will be reduced from 16.11 cents per pound in 1995 to zero in 2008. Duties for most countries will remain at 15.36 cents per pound for raw cane sugar and 16.21 cents per pound for refined sugar. This implies that Mexico is in a unique position to increase its exports of sugar to the United States above the allocated quota. Mexico produced 5.2 million metric tons of sugar in 2003 and consumed 5.0 million metric tons in the same year. Its net exports were zero for the year. If Mexico starts to use High Fructose Corn Sweetener (HFCS) for beverages, more of its sugar could be exported to the United States. Currently there are transportation and use taxes on HFCS in Mexico.

The United States signed a trade agreement with the Central American countries of El Salvador, Guatemala, Honduras, Nicaragua, Costa Rica and the Dominican Republic. CAFTA allows 107,000 metric tons of additional sugar to be imported into the United States in the first year of implementation of the agreement, and increases by about 3,000 metric tons per year. The level allowed does not have a significant impact on the price of U.S. sugar or world trade flows. Recent trade agreement and negotiations with Australia do not include increased sugar imports.

Domestic and Export Subsidies in the EU, South Africa, and Mexico

The basic tools of the EU's sugar policies are (1) import restrictions with limited free access for certain suppliers; (2) internal support prices that ensure returns to producers for fixed quantities of production and permit the maintenance of refining capacity; and (3) export subsidies for a quantity of domestically produced sugar.

EU member states allocate an "A" quota and a "B" quota to each sugar producing operation, each isoglucose producing operation, and each inulin syrup producing operation established in their territory. Current quota levels have been in place since the accession of Austria, Sweden, and Finland to the EU and are currently legislated at these levels until 2004/05. The total EU sugar production quotas for A and B sugar are 11.98 million metric tons and 2.61 million metric tons, respectively. Any sugar that is produced by any member of the EU in excess of its yearly quota is considered "C-sugar." A and B sugar production is used for domestic consumption and for subsidized exports. C-sugar must be exported into the world market without subsidy or carried over into the next marketing year. In general, the EU's target price for white sugar is about 30 cents (Euro) per pound, and its intervention price is 28.72 cents (Euro) per pound. The EU's internal support is about 30% higher than that in the United States.

Since marketing year 1995, EU-subsidized exports of sugar to third-world countries have been limited, in volume and value, under the URA commitments of the EU. However, the EU did not make an export subsidy commitment on its subsidized exports of a quantity of sugar equal to its preferential imports under the Lome Convention. The EU is proposing to limit sugar production to about 14.9 million metric tons per year. Currently, the EU produces 19.7 million metric tons of sugar. If the EU limits sugar production to the stated level, the EU will become an importer. The limit is not included in the model.

South Africa has both internal price supports and export subsidies. South Africa reduced its subsidized exports by 200,000 tons to 702,208 tons by the year 2000 under the URA. Mexico also has subsidized exports and is subsidizing raw sugar storage.

Brazil

Brazil is the largest sugar producing country in the world. The production of sugar has increased 259% since 1990. About 50% of Brazilian sugar consumed domestically is converted into ethanol for fuel. Exports have risen from 1.2 million metic tons in 1990 to 18.1 million metric tons in 2004. Sugar that is converted into ethanol is subsidized at prices higher than world price.

State Trading Enterprises in Australia, China, and India

Australia's sugar exports are handled by the Queensland Sugar Corporation (QSC), a statutory authority established under the Sugar Industry Act 1991. The QSC is responsible for the domestic marketing and export of 100% of the raw sugar produced in the state of Queensland, which produces 95% of the sugar produced in Australia. The QSC supports domestic producers through buyer-seller arrangements, marketing quotas, dual pricing arrangements, and other quasi-government mechanisms that isolate domestic producers from foreign competition. State trading enterprises (STEs) were not addressed in the URA. Other countries, including China and India, handle their sugar trade through STEs similar to the QSC.

OUTLOOK FOR THE WORLD SUGAR INDUSTRY

Total world sugar trade is projected to increase 19.3%, from 28.5 to 34.0 million metric tons. Export of sugar in most countries will increase for 2004-2013. Brazil's exports are expected to increased from 18.1 million tons in 2004 to 21.5 million metric tons in 2013. Exports for Thailand will increase 22.7%, and exports for Australia will increase 6.4%.

World sugar prices, referred to as the Caribbean price of sugar, are projected to increase about 3.6% from 8.40 cents/lb in 2004 to 8.70 cents/lb in 2013 (Figure 1) because of expected moderate demand for sugar. The domestic wholesale price of U.S. sugar is projected to decrease 5.6% from 26.10 cents/lb in 2004 to 24.65 cents/lb in 2013. U.S. sugar price decreases mainly because of increases in U.S. sugar imports from Mexico under NAFTA. The expected increases in U.S. sugar imports tend to reduce the gap between world and U.S. wholesale prices. If CAFTA is implemented for 2005, its impact on the U.S. domestic sugar price would be insignificant.

United States

Table 2 shows production, consumption, imports, and ending stocks of sugar for the United States. U.S. sugar production is predicted to increase to 8.2 million metric tons in 2013. Imports are predicted to increase 11.8% from the 2002-04 average of 1.4 million metric tons to 1.5 million metric tons in 2013, under an assumption that Mexico slightly increases its exports to the United States and CAFTA is ratified.

The domestic wholesale price for U.S. sugar is projected to decrease from 26.2 cents/lb in 2004 to 24.9 cents/lb in 2013 under the current TRQ system. The United States will increase imports to over 15% of its domestic sugar consumption because of slightly increased imports from CAFTA. U.S. sugar consumption is predicted to increase 8.3% from 9.0 million metric tons (the 2002-2004 average) to 9.7 million metric tons in 2013. Ending stocks are also predicted to decrease 15.6% (Table 2).

Table 2. U.S. Sugar Production, Consumption, Imports, and Carry-over Stock, 2004-2013 average				
	Average (2002-2004)	2004	2013	% Change (2002-04) to 2013
	----------1,000 metric tons-----------			
Production	7,735	7,718	8,211	6.15
Beet	4,189	4,261	4,248	1.43
Cane	3,546	3,457	3,962	11.71
Net Imports	1,356	1,297	1,515	11.75
Per capita Consumption	72	72	73	1.39
Consumption	8,966	8,986	9,710	8.29
Carry-over Stocks	1,666	1,759	1,407	-15.56

Exporters

The EU's exports are predicted to decrease from 2.6 million metric tons for 2002-2004 to 1.3 million metric tons in 2013 (Figure 5). Sugar production in the EU is predicted to increase slightly, and consumption is predicted to increase from 15.5 million metric tons for the 2002-2004 average to 17.5 million tons in 2013 (Table 3). Most of the increase is due to the additional countries now included in the EU.

Brazil's production is predicted to increase 26.1% from 26.2 million metric tons in 2002-2004 to 33.0 million metric tons in 2013 (Table 3). Brazil's exports are predicted to increase from 15.8 million metric tons in 2002-2004 to 21.5 million metric tons in 2013. Consumption is predicted to increase 15.1% from 10.0 million metric tons in 2002-2004 to 11.6 million metric tons in 2013. Much of the increase is due to ethanol production.

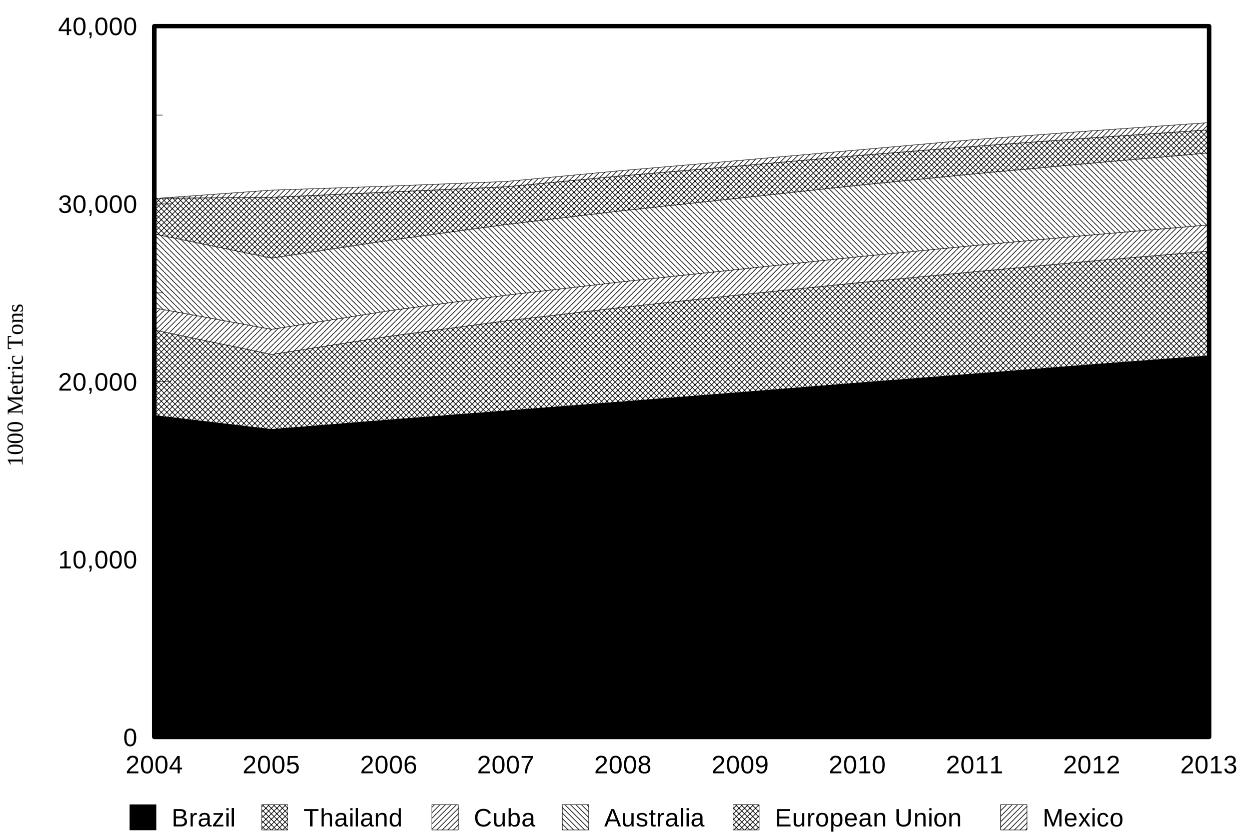

Figure 5. World Sugar Exports by Country

Thailand's exports are predicted to increase 15.9% from 5.1 million metric tons for the 2002-2004 average to 5.9 million metric tons in 2013 (Table 3). Consumption increases from 2.0 million metric tons for the 2002-2004 average to 2.3 million metric tons in 2013. Sugar production in the country also is predicted to increase 18.6% from 6.9 million metric tons to 8.2 million metric tons in 2013.

Australia's exports are predicted to increase 6.4% from 4.1 million metric tons for the 2002-2004 average to 4.3 million metric tons in 2013 (Table 3), due mainly to increased sugar production, which is predicted to increase 6.5% from 5.3 million metric tons to 5.7 million metric tons in 2013. Sugar consumption is expected to increase 11.4% from 1.2 million metric tons to 1.3 million metric tons in 2013.

Cuba's exports are predicted to decrease 6.7% from 1.6 million metric tons in 2002-2004 to 1.5 million metric tons in 2013 (Table 3). It is predicted that Cuba will increase its sugar production from 2.2 million metric tons for the 2002-2004 average to 2.3 million metric tons in 2013. Cuba's consumption is predicted to increase 16.0% from 0.7 million metric tons for the 2002-2004 average to 0.81 million metric tons in 2013. These projections are based on the assumption that the political situation remains the same between the United States and Cuba.

Mexico's production is predicted to increase 15.2% from 5.4 million metric tons in 2002-2004 to 6.2 million metric tons in 2013. Mexico is expected to export 405 thousand metric tons by 2013, mainly to the United States under NAFTA. Sugar consumption is predicted to increase 6.9% from 5.5 million metric tons in 2002-2004 to 5.8 million metric tons in 2013. Ending stocks are predicted to decrease 29.4%. If Mexico replaces the sugar that is used in soft drinks with HFCS, the excess sugar will likely be exported to the United States under NAFTA.

South Africa's production is predicted to increase 17.9% from 2.6 million metric tons in 2002-2004 to 3.1 million metric tons in 2013. South Africa's exports are predicted to increase 50.1% from 0.9 million metric tons in 2002-2004 to 1.4 million metric tons in 2013, due mainly to increased production. Sugar consumption is predicted to increase 3.7%. Ending stocks are predicted to decrease 14.6%.

Table 3. Sugar Production, Consumption, Exports, and Carry-over Stocks in Exporting Countries

	Average (2002-2004)	2004	2013	% change (2002-04) to 2013
	----------1,000 metric tons--------			
European Union				
Production	18,287	19,684	18,834	3.0
Net Exports	2,600	2,004	1,293	-50.3
Consumption	15,501	17,635	17,526	13.1
Carry-over	3,902	4,717	3,660	-6.2
Brazil				
Production	26,193	28,370	33,039	26.1
Net Exports	15,780	18,100	21,458	36.0
Consumption	10,063	10,300	11,582	15.1
Carry-over	940	1,260	1,208	28.5
Thailand				
Production	6,939	6,520	8,230	18.6
Net Exports	5,080	4,800	5,888	15.9
Consumption	1,990	2,050	2,332	17.2
Carry-over	848	585	995	17.3
Australia				
Production	5,318	5,500	5,666	6.5
Net Exports	4,068	4,154	4,329	6.4
Consumption	1,200	1,200	1,337	11.4
Carry-over	610	657	600	-1.6
Cuba				
Production	2,183	2,000	2,282	4.5
Net Exports	1,583	1,250	1,478	-6.7
Consumption	700	700	812	16.0
Carry-over	65	82	86	31.6
Mexico				
Production	5,416	5,690	6,239	15.2
Net Exports	(94)	(9)	405	NA
Consumption	5,450	5,376	5,824	6.9
Carry-over	1,266	1,354	893	-29.4
South Africa				
Production	2,621	2,371	3,091	17.9
Net Exports	931	994	1,398	50.1
Consumption	1,627	1,640	1,687	3.7
Carry-over	710	638	606	-14.6

Importers

Figures 6 through 8 show sugar imports by the major sugar importing countries. Sugar imports of selected Asian and African countries are expected to increase 68.2% and 22.3%, respectively, for the 2004-2013 period. The FSU is the largest importer for the period, followed by Indonesia and Japan.

Canada's production is predicted to increase above the 2002-2004 average of 87 thousand metric tons to 113 thousand tons by the year 2013, and consumption is predicted to increase from 1.4 million metric tons to 1.6 million metric tons in 2013 (Table 4). As a result, Canada's imports are predicted to increase 16.0% from 1.3 million metric tons to 1.5 million metric tons in 2013.

The FSU's production is predicted to increase 13.7% from 3.9 million metric tons to 4.4 million metric tons in 2004-2013, and consumption is predicted to increase 2.2% from 11.0 million metric tons to 11.3 million metric tons for the same period. Imports are predicted to increase slightly from 6.8 million metric tons in 2002-2004 to 6.9 million metric tons in 2013 (Table 4).

China is expected to increase its imports about 264.0% from 1.0 million metric tons in 2002-2004 to 3.7 million metric tons in 2013 (Table 4). China's production is predicted to decrease 3.7% from 11.1 million metric tons for the 2002-2004 average to 10.7 million metric tons in 2013, and consumption is predicted to increase 24.1% from 11.6 million metric tons to 14.4 million metric tons for the period.

India's production is predicted to increase 23.4% from 17.1 million metric tons in 2002-2004 to 21.0 million metric tons in 2013. India is predicted to import 0.7 million metric tons of sugar by 2013.

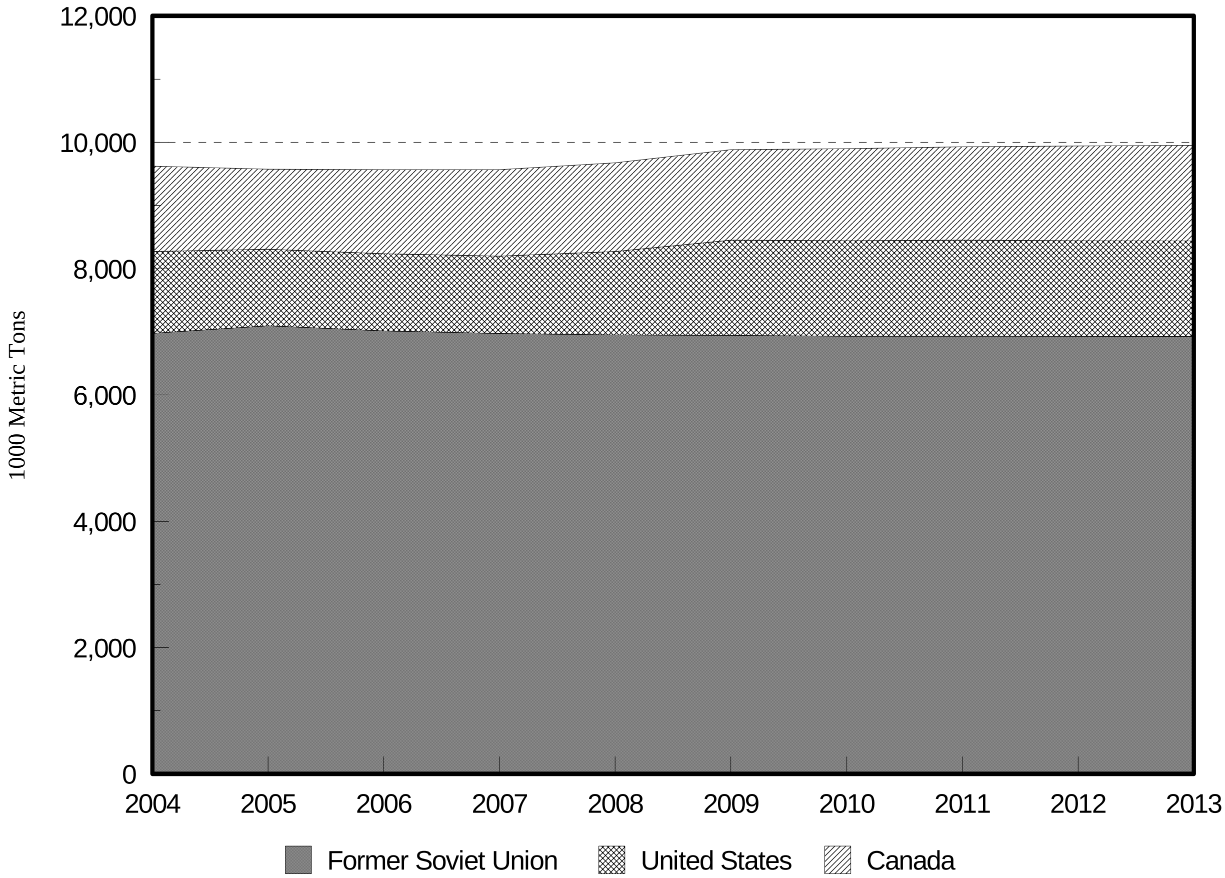

Figure 6. World Sugar Imports by Country, Major Importers

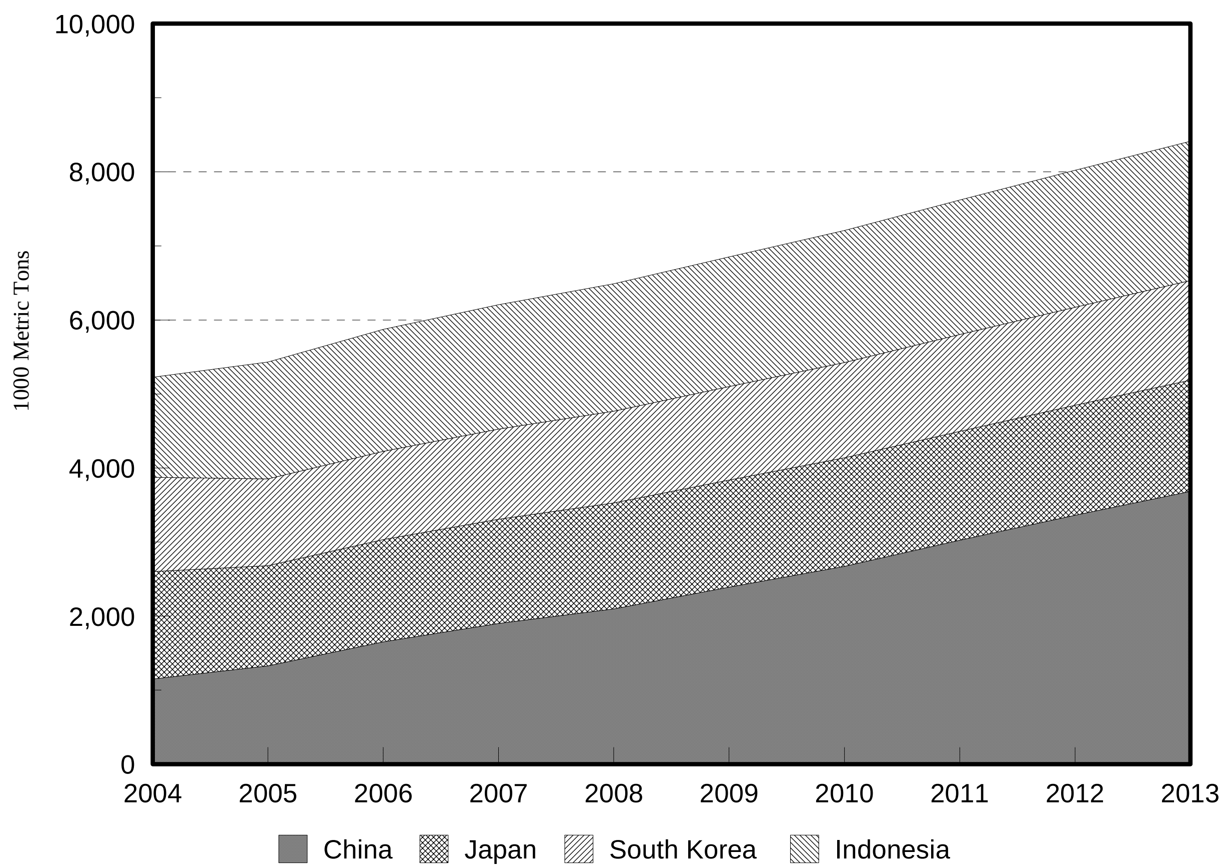

Figure 7. World Sugar Imports by Country, Asian Countries

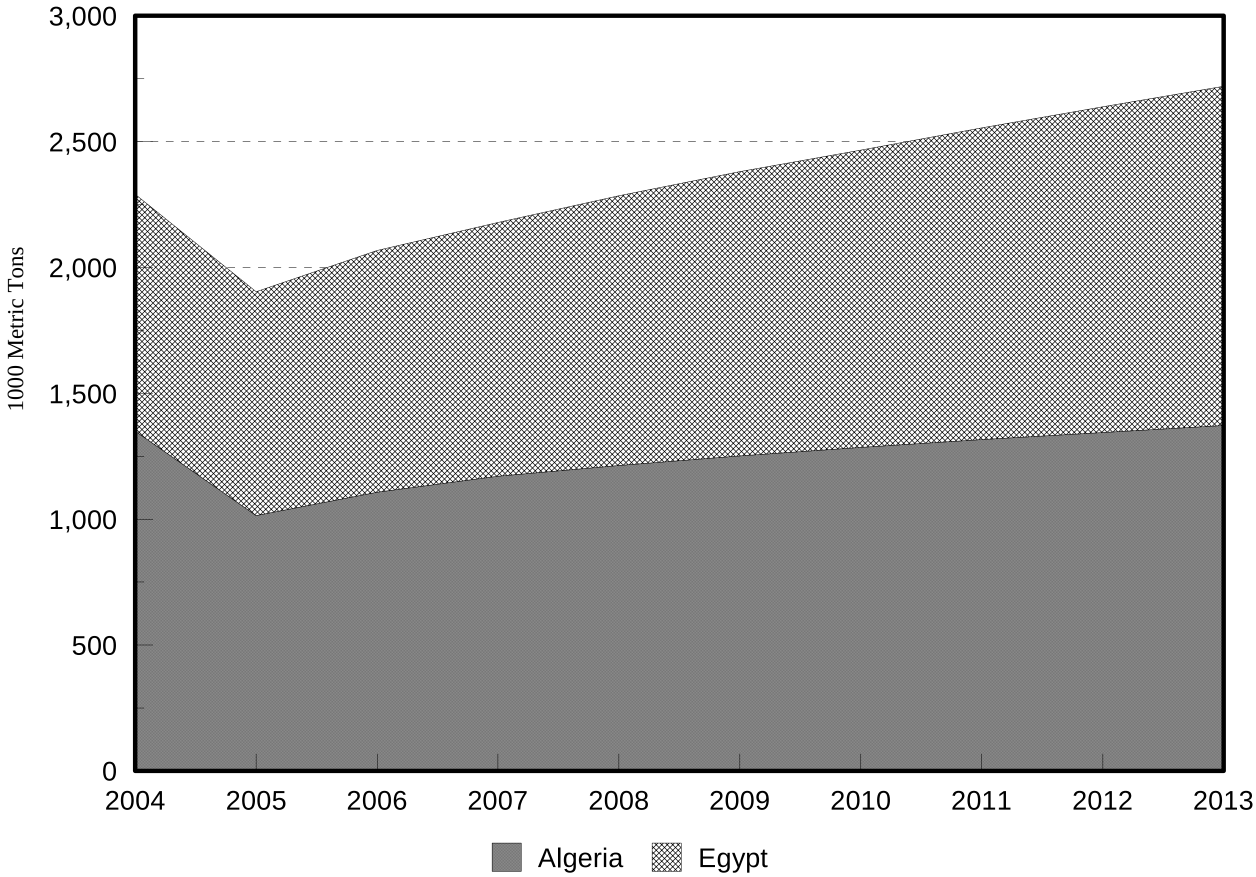

Figure 8. World Sugar Imports by Country, African Countries

Japan's imports are predicted to increase 3.5% from the 2002-2004 average to 1.5 million metric tons in 2013, due mainly to increased domestic consumption. Consumption is predicted to increase 4.6% from 2.3 million metric tons to 2.4 million metric tons for the period (Table 4).

In South Korea, consumption is predicted to increase 5.7% for the time period. As a result, South Korea's imports are predicted to increase 5.8% for the period. There is no domestic production of either sugar cane or sugar beet in South Korea.

In Algeria, consumption is predicted to increase 20.3% from 1.2 million metric tons in 2002-2004 to 1.4 million metric tons in 2013. This increase in consumption results in imports increasing from 1.2 million metric tons for the 2002-2004 average to 1.4 million metric tons in 2013.

Egypt's imports are predicted to increase 34.4% from 0.9 million metric tons in 2002-2004 to 1.2 million metric tons in 2013, due mainly to increased consumption. Consumption is predicted to increase 23.1% from 2.3 million metric tons to 2.8 million metric tons in 2013.

Indonesia's imports are predicted to increase 26.8% from 1.5 million metric tons in 2002-2004 to 1.9 million metric tons in 2013. Consumption is predicted to increase 19.8% from 3.4 million metric tons for the 2002-2004 average to 4.1 million metric tons in 2013.

Table 4. Sugar Production, Consumption, Imports, and Carry-over Stocks in Importing Countries

	Average (2002-04)	2004	2013	% Change (2–2-04) to 2013
		-----------1,000 metric tons------------		
Algeria				
Production	10	10	11	10.0
Net Imports	1,212	1155	1,372	13.2
Consumption	1,150	1,175	1,384	20.3
Carry-over	436	429	118	-72.9
Canada				
Production	87	110	113	29.4
Net Imports	1,306	1350	1,514	16.0
Consumption	1,426	1,450	1,624	13.9
Carry-over	188	153	98	-48.0
China				
Production	11,117	11,240	10,706	-3.7
Net Imports	1,011	1150	3,685	264.6
Consumption	11,577	12,180	14,371	24.1
Carry-over	2,284	2,521	2,803	22.7
Egypt				
Production	1,362	1,410	1,505	10.5
Net Imports	920	940	1,236	34.4
Consumption	2,314	2,318	2,849	23.1
Carry-over	325	351	310	-4.5
Former Soviet Union				
Production	3,853	3,983	4,382	13.7
Net Imports	6,784	6975	6,922	2.0
Consumption	11,043	10,960	11,290	2.2
Carry-over	1,984	1,752	2,212	11.5
India				
Production	17,060	13,590	21,044	23.4
Net Imports	193	1780	684	253.8
Consumption	19,577	19,170	21,693	10.8
Carry-over	8,543	4,700	4,920	-42.4
Indonesia				
Production	1,812	1,950	2,229	23.0
Net Imports	1,483	1350	1,881	26.8
Consumption	3,433	3,500	4,112	19.8
Carry-over	1,160	970	926	-20.2
Japan				
Production	867	850	892	2.8
Net Imports	1,452	1452	1,503	3.5
Consumption	2,293	2,290	2,397	4.6
Carry-over	382	399	258	-32.4
Korea				
Production	0	0	0	0.0
Net Imports	1,268	1275	1,342	5.8
Consumption	1,268	1,275	1,340	5.7
Carry-over	110	110	145	31.8

CONCLUDING REMARKS

This report provides an overview of the U.S. and world sugar markets for 2004-2013 using the Global Sugar Policy Simulation Model. The baseline projections are based on a series of assumptions about general economic conditions, agricultural policies, weather conditions, and technological change.

Total world sugar trade is projected to increase by 19.3% from 28.5 million metric tons in 2004 to 34.0 million metric tons in 2013. The price of Caribbean sugar is expected to increase about 3.6% from 8.40 cents/lb in 2004 to 8.70 cents/lb in 2013, because of slightly faster growth in world consumption of sugar compared to world production. The wholesale price of U.S. sugar is projected to decrease 5.6% from 26.1 cents/lb in 2004 to 24.89 cents/lb in 2013. If CAFTA is implemented for 2005, the U.S. price of sugar would decrease slightly.

Exports are predicted to increase for Brazil, Australia, South Africa, and Thailand, while exports are predicted to decline about 50% for the EU.

Imports by all importing countries are predicted to increase from the 2002-04 average to 2013. China's imports are predicted to increase 264%, while Japan's imports are predicted to increase 3.5%. Imports by South Korea and Algeria are predicted to increase 5.8% and 13.2%, respectively.

U.S. sugar consumption is predicted to increase 8.3% for the forecasting period, while production is expected to increase 6.2%. Imports are predicted to increase 11.8% for the period because of increased sugar from Mexico and CAFTA. However, the U.S. sugar industry could face greater uncertainty mainly because of upcoming free trade agreements with the Western Hemisphere countries and Thailand.

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Appendix

World Sugar Policy Simulation Model

2005 Baseline Solution

United States - Nominal Sugar Beet and Sugarcane Farm Prices (dollars/short ton)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	40.00	39.18	39.13	38.85	38.00	37.83	39.19	39.19	39.75	40.34
Sugarcane	27.00	26.64	26.59	26.33	25.53	25.37	26.65	26.65	27.17	27.73

United States - Nominal Sugar Prices (U.S. cents/pound)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Caribbean Price	8.40	8.42	8.38	8.37	8.32	8.29	8.43	8.43	8.55	8.70
TRQ Status	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
Implicit Tariff	9.10	7.00	7.00	6.80	6.20	6.10	7.00	7.00	5.70	5.80
Import Price	17.50	15.42	15.38	15.17	14.52	14.39	15.43	15.43	15.85	16.30
Wholesale Price	26.15	23.96	23.92	23.70	23.02	22.88	23.97	23.97	24.41	24.89
Retail Price	42.40	39.44	39.38	39.08	38.16	37.97	39.45	39.45	40.05	40.69

United States - Area Harvested (1000 acres)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	1348	1344	1344	1348	1354	1352	1361	1369	1379	1396
Sugarcane	975	973	976	983	989	982	983	985	990	999
Total Area	2323	2316	2320	2331	2343	2334	2344	2354	2368	2395

United States - Yields (short tons/acre)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	21.60	21.50	21.63	21.81	21.91	21.99	22.12	22.20	22.33	22.41
Sugarcane	35.50	35.67	35.83	35.99	36.14	36.30	36.36	36.46	36.59	36.73

United States - Sugar Beet and Sugarcane Production (1000 short tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	29117	28893	29067	29401	29668	29732	30099	30386	30780	31291
Sugarcane	34613	34696	34981	35368	35744	35648	35741	35918	36212	36691

United States - Sugar Extraction Rates (percent)

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	14.97	14.97	14.97	14.97	14.97	14.97	14.97	14.97	14.97	14.97
Sugarcane	11.90	11.90	11.90	11.90	11.90	11.90	11.90	11.90	11.90	11.90

United States - Sugar Production (1000 short tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Beet Sugar	4358	4324	4350	4400	4440	4450	4505	4548	4607	4683
Cane Sugar	4120	4130	4164	4210	4255	4243	4254	4275	4310	4367
All Sugar	8478	8454	8514	8610	8695	8693	8759	8823	8917	9051

United States - Sugar Import Quotas (1000 short tons, raw value) and Tariffs (U.S. cents/pound, raw sugar, most countries)

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Tariff Rate Quota	1256	1256	1256	1256	1256	1256	1256	1256	1256	1256
Below Quota Tariff	0	0	0	0	0	0	0	0	0	0
Above Quota Tariff	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36

United States - Implicit Tariff (U.S. cents/pound) and Sugar Trade (1000 short tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
TRQ Status	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
Implicit Tariff	9.10	7.00	7.00	6.80	6.20	6.10	7.00	7.00	7.30	7.60
Total Imports	1629	1461	1466	1471	1576	1781	1786	1791	1790	1790
Quota-sugar Imports	1529	1361	1366	1371	1476	1681	1686	1691	1690	1690
Other Sugar Imports	100	100	100	100	100	100	100	100	100	100
Total Exports	200	120	120	120	120	120	120	120	120	120
Net Imports	1429	1341	1346	1351	1456	1661	1666	1671	1670	1670

United States - Sugar Supply and Utilization (1000 short tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	1907	1939	1954	1868	1743	1606	1559	1583	1555	1548
Production	8507	8454	8514	8610	8695	8693	8759	8823	8917	9051
Net Imports	1429	1341	1346	1351	1456	1661	1666	1671	1670	1670
Consumption	9905	9767	9917	10070	10273	10388	10397	10514	10609	10703
Carry-out Stocks	1939	1954	1868	1743	1606	1559	1583	1555	1548	1551

United States - Per Capita Sugar Consumption (pounds) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	69.03	67.45	67.86	68.29	69.06	69.22	68.69	68.87	68.89	68.91
Stocks/Consumption	19.58	20.01	18.84	17.31	15.64	15.00	15.23	14.79	14.60	14.49

Canada - Sugar Beet Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	21	21	21	21	21	21	21	20	20	20
Yield	45.22	45.80	46.19	46.63	47.05	47.48	47.90	48.33	48.76	49.18
Production	950	967	972	975	979	982	986	990	994	998

Canada - Sugar Beet Exogenous Variables

Variable	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Extraction Rate (%)	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30	11.30

Canada - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	143	153	99	82	78	80	83	87	91	95
Production	110	109	110	110	111	111	111	112	112	113
Net Imports	1350	1264	1330	1370	1402	1434	1458	1481	1500	1514
Imports	1370	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Exports	20	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1450	1427	1457	1484	1511	1541	1565	1589	1609	1624
Carry-out Stocks	153	99	82	78	80	83	87	91	95	98

Canada - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	44.55	43.45	43.97	44.39	44.81	45.32	45.64	45.96	46.14	46.21
Stocks/Consumption	10.55	6.96	5.63	5.27	5.27	5.41	5.58	5.75	5.90	6.03

Mexico - Sugarcane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	618	620	625	630	637	644	652	660	668	676
Yield	73.70	75.04	75.59	75.93	76.22	76.50	76.77	77.04	77.31	77.58
Production	45547	46537	47210	47864	48551	49281	50046	50824	51619	52426

Mexico - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	11.50	11.80	11.80	11.80	11.80	11.80	11.80	11.90	11.90	11.90

Mexico - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	1249	1354	1118	990	924	891	877	873	876	884
Production	5690	5491	5571	5648	5729	5815	5905	6048	6143	6239
Net Imports	9	-412	-335	-299	-290	-299	-313	-380	-393	-405
Exports	12	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	21	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	5376	5316	5363	5416	5472	5530	5596	5665	5743	5824
Carry-out Stocks	1354	1118	990	924	891	877	873	876	884	893

Mexico - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	49.32	48.20	48.06	47.98	47.93	47.90	47.92	47.98	48.10	48.26
Stocks/Consumption	25.19	21.02	18.46	17.05	16.28	15.85	15.60	15.47	15.39	15.34

Algeria - Sugar Beet Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	7	7	7	7	7	7	7	7	7	7
Yield	20	20	20	20	20	20	20	20	20	20
Production	143	145	146	147	148	149	149	150	150	151

Algeria - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarbeet	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.41	7.41

Algeria - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	449	429	282	201	157	133	120	113	110	108
Production	11	11	11	11	11	11	11	11	11	11
Net Imports	1350	1014	1107	1170	1213	1251	1285	1316	1344	1372
Exports	195	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1175	1172	1198	1225	1248	1275	1303	1330	1357	1384
Carry-out Stocks	429	282	201	157	133	120	113	110	108	108

Algeria - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	34.03	33.41	33.63	33.84	33.95	34.17	34.42	34.62	34.79	35.00
Stocks/Consumption	36.51	24.02	16.76	12.80	10.65	9.42	8.70	8.26	7.99	7.79

Australia - Sugarcane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	420	421	422	422	423	424	425	425	426	427
Yield	92	92	92	93	93	93	94	94	95	95
Production	38486	38727	38952	39165	39377	39606	39853	40083	40307	40535

Australia - Sugar Extraction Rate (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30

Australia - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	511	657	600	600	600	600	600	600	600	600
Production	5500	5151	5181	5209	5237	5268	5301	5331	5361	5391
Net Exports	4159	4013	3968	3978	3987	4000	4014	4027	4042	4054
Exports	4164	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1200	1195	1213	1231	1250	1268	1286	1305	1319	1337
Carry-out Stocks	657	600	600	600	600	600	600	600	600	600

Australia - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	61.42	60.60	61.01	61.42	61.83	62.24	62.65	63.07	63.28	63.70
Stocks/Consumption	54.75	50.22	49.46	48.73	48.01	47.32	46.65	45.99	45.50	44.87

Brazil - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	1290	1260	1209	1218	1215	1214	1213	1212	1211	1209
Production	28370	27673	28414	29071	29732	30394	31055	31716	32378	33039
Net Exports	18100	17318	17843	18364	18878	19398	19917	20443	20962	21458
Exports	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	18100	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	10300	10406	10562	10710	10855	10997	11139	11275	11417	11582
Carry-out Stocks	1260	1209	1218	1215	1214	1213	1212	1211	1209	1208

Brazil - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	55.62	55.58	55.82	56.03	56.23	56.41	56.61	56.79	57.01	57.34
Stocks/Consumption	12.23	11.62	11.53	11.34	11.18	11.03	10.88	10.74	10.59	10.43

China - Area Harvested (1000 hectares)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	630	626	629	626	626	626	627	629	630	633
Sugarcane	1360	1357	1357	1356	1356	1355	1356	1355	1353	1352
Total Area	1990	1983	1987	1982	1982	1981	1983	1985	1983	1984

China - Yields (metric tons/hectare)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	36.00	36.16	36.29	36.39	36.46	36.61	36.73	36.81	36.88	36.92
Sugarcane	69.00	68.75	68.52	68.33	68.15	67.98	67.82	67.68	67.53	67.40

China - Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013

Sugar Beets	22680	22642	22843	22781	22823	22908	23041	23167	23230	23352
Sugarcane	93840	93278	92991	92636	92393	92119	91975	91723	91398	91101

China - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarbeets	10.15	10.15	10.15	10.15	10.15	10.15	10.15	10.15	10.15	10.15
Sugarcane	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15	9.15

China - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	2311	2521	2463	2540	2627	2660	2697	2722	2756	2783
Production	11240	10833	10827	10789	10770	10754	10754	10744	10721	10706
Beet Sugar	2302	2298	2319	2312	2316	2325	2339	2351	2358	2370
Cane Sugar	8586	8535	8509	8476	8454	8429	8416	8393	8363	8336
Net Imports	1150	1328	1651	1900	2099	2393	2671	3023	3360	3685
Exports	50	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1200	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	12180	12220	12402	12602	12837	13111	13400	13732	14055	14371
Carry-out Stocks	2521	2463	2540	2627	2660	2697	2722	2756	2783	2803

China - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	9.31	9.28	9.37	9.46	9.58	9.72	9.87	10.05	10.22	10.38
Stocks/Consumption	20.70	20.15	20.48	20.84	20.72	20.57	20.31	20.07	19.80	19.50

Cuba - Sugarcane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	715	725	725	725	725	725	725	725	725	726
Yield	28	29	29	29	29	30	30	30	30	30
Production	20020	20677	20950	21147	21317	21470	21617	21774	21919	22072

Cuba - Sugar Extraction Rate (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	10.00	10.34	10.34	10.34	10.34	10.34	10.34	10.34	10.34	10.34

Cuba - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	32	82	86	94	103	103	109	107	101	94
Production	2000	2138	2166	2187	2204	2220	2235	2251	2266	2282
Net Exports	1250	1422	1433	1439	1452	1449	1461	1468	1473	1478
Consumption	700	712	726	738	752	765	776	789	801	812
Carry-out Stocks	82	86	94	103	103	109	107	101	94	86

Cuba - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	60.83	61.60	62.44	63.25	64.09	64.92	65.59	66.39	67.09	67.75
Stocks/Consumption	11.71	12.07	12.91	13.94	13.70	14.23	13.74	12.83	11.73	10.55

Egypt - Area Harvested (1000 hectares)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	38	45	44	44	45	45	46	46	45	45

Sugarcane	133	133	133	133	133	133	133	133	133	133
Total Area	171	178	177	177	177	178	179	179	179	179

Egypt - Yields (metric tons/hectare)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	43.60	43.70	44.07	44.37	44.68	44.99	45.30	45.61	45.92	46.23
Sugarcane	103.80	103.91	104.13	104.45	104.85	105.32	105.85	106.43	107.06	107.72

Egypt - Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	1674	1960	1930	1974	2001	2032	2063	2077	2089	2103
Sugarcane	13785	13796	13822	13861	13910	13990	14077	14169	14266	14367

Egypt - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75
Sugarcane	8.50	8.50	8.50	8.60	8.60	8.60	8.60	8.60	8.60	8.60

Egypt - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	319	351	335	324	317	312	309	307	307	308
Production	1410	1423	1421	1444	1451	1462	1474	1483	1493	1504
Beet Sugar	213	250	246	252	255	259	263	265	266	268
Cane Sugar	1172	1173	1175	1192	1196	1203	1211	1219	1227	1236
Net Imports	940	889	961	1008	1071	1129	1181	1239	1294	1347
Exports	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	940	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2318	2327	2393	2459	2527	2594	2656	2723	2786	2849
Carry-out Stocks	351	335	324	317	312	309	307	307	308	310

Egypt - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	32.82	32.36	32.70	33.02	33.36	33.69	33.94	34.25	34.51	34.76
Stocks/Consumption	15.14	14.42	13.55	12.87	12.33	11.90	11.57	11.29	11.07	10.88

European Union - Sugar Quota (1000 metric tons, white sugar equivalent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
A-Quota	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
B-Quota	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
A plus B Quota	13669	13669	13669	13669	13669	13669	13669	13669	13669	13669
Raw Sugar Equivalent	14626	14626	14626	14626	14626	14626	14626	14626	14626	14626

European Union - Sugar Beet Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	2250	2150	2130	2124	2122	2120	2119	2118	2117	2116
Yield	58.00	58.02	58.12	58.26	58.41	58.56	58.71	58.86	59.02	59.17
Production	130500	124727	123799	123764	123930	124143	124384	124672	124936	125224

European Union - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	15.04	15.04	15.04	15.04	15.04	15.04	15.04	15.04	15.04	15.04

European Union - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	4699	4717	3941	3555	3570	3585	3601	3616	3631	3646
Production	19684	18759	18619	18614	18639	18671	18707	18751	18790	18834
Net Exports	2004	3423	2710	2122	1967	1821	1683	1551	1420	1293
Exports	4374	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	2370	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	17662	16112	16295	16477	16656	16834	17010	17184	17356	17526
Carry-out Stocks	4717	3941	3555	3570	3585	3601	3616	3631	3646	3660

European Union - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	49.43	45.00	45.43	45.86	46.29	46.72	47.15	47.58	48.01	48.45
Stocks/Consumption	26.71	24.46	21.82	21.66	21.53	21.39	21.26	21.13	21.00	20.88

India - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	8500	4700	4641	4652	4685	4727	4772	4808	4849	4885
Production	13590	16518	18111	18986	19778	20224	20490	20757	20926	21044
Net Exports	-1780	-2878	-1640	-1070	-569	-405	-409	-424	-527	-684
Exports	20	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1800	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	19170	19456	19740	20022	20305	20585	20863	21140	21417	21693
Carry-out Stocks	4700	4641	4652	4685	4727	4772	4808	4849	4885	4920

India - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	16.79	16.80	16.81	16.82	16.83	16.84	16.85	16.86	16.87	16.88
Stocks/Consumption	24.52	23.85	23.56	23.40	23.28	23.18	23.05	22.94	22.81	22.68

Indonesia - Sugarcane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	347	350	353	357	361	365	369	373	378	383
Yield	66.97	67.62	68.27	68.92	69.57	70.22	70.87	71.52	72.17	72.82
Production	23226	23648	24093	24576	25085	25608	26147	26711	27282	27868

Indonesia - Sugar Extraction Rate

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

Indonesia - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	1170	970	941	939	937	936	934	932	930	928
Production	1950	1892	1927	1966	2007	2049	2092	2137	2183	2229

Net Imports	1350	1579	1645	1682	1717	1751	1784	1816	1848	1881
Exports	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1350	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	3500	3500	3575	3650	3725	3801	3878	3955	4033	4112
Carry-out Stocks	970	941	939	937	936	934	932	930	928	926

Indonesia - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	15.68	15.45	15.56	15.67	15.78	15.89	16.01	16.13	16.25	16.38
Stocks/Consumption	27.71	26.88	26.25	25.67	25.12	24.57	24.03	23.52	23.02	22.53

Japan - Area Harvested (1000 hectares)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	65	65	66	66	66	66	66	66	66	66
Sugarcane	23	24	24	24	24	24	24	24	24	24
Total Area	88	89	90	90	90	90	89	90	91	91

Japan - Yields (metric tons/hectare)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	53.20	53.76	54.22	54.63	55.03	55.41	55.79	56.17	56.54	56.92
Sugarcane	60.20	60.31	60.35	60.40	60.44	60.48	60.53	60.57	60.61	60.66

Japan - Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	3458	3507	3556	3599	3632	3652	3660	3712	3745	3761
Sugarcane	1385	1437	1478	1449	1426	1465	1430	1459	1477	1485

Japan - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94	18.94
Sugarcane	12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13	12.13

Japan - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	387	399	330	296	278	270	265	262	261	259
Production	850	839	853	857	861	869	867	880	888	892
Beet Sugar	700	664	673	682	688	692	693	703	709	712
Cane Sugar	150	174	179	176	173	178	173	177	179	180
Net Imports	1452	1353	1382	1408	1429	1443	1466	1473	1486	1503
Exports	10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1462	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2290	2260	2269	2282	2299	2317	2335	2355	2376	2397
Carry-out Stocks	399	330	296	278	270	265	262	261	259	258

Japan - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	18.03	17.78	17.84	17.95	18.08	18.23	18.40	18.58	18.78	19.00
Stocks/Consumption	17.42	14.60	13.03	12.20	11.73	11.44	11.23	11.06	10.91	10.75

Korea - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	110	110	116	121	126	131	135	138	141	144
Net Imports	1275	1170	1193	1216	1240	1263	1284	1305	1324	1342
Exports	335	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Imports	1610	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1275	1164	1187	1211	1235	1259	1281	1302	1322	1340
Carry-out Stocks	110	116	121	126	131	135	138	141	144	145

Korea - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	26.22	23.79	24.13	24.48	24.83	25.18	25.51	25.83	26.12	26.41
Stocks/Consumption	8.63	9.94	10.21	10.42	10.59	10.74	10.80	10.85	10.87	10.84

South Africa - Sugarcane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	339	338	339	342	346	350	354	359	364	369
Yield	75.10	74.06	74.26	74.46	74.66	74.86	75.06	75.26	75.46	75.66
Production	25459	25010	25177	25456	25804	26193	26607	27039	27480	27927

South Africa - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07

South Africa - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	906	638	588	590	594	602	601	598	590	599
Production	2818	2769	2787	2818	2856	2900	2945	2993	3042	3091
Net Exports	994	1209	1162	1174	1182	1236	1293	1370	1368	1398
Exports	1300	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	306	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1645	1609	1623	1640	1667	1665	1656	1631	1665	1687
Carry-out Stocks	638	588	590	594	602	601	598	590	599	606

South Africa - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	37.11	36.44	36.99	37.65	38.63	39.00	39.30	39.23	40.59	41.66
Stocks/Consumption	38.78	36.55	36.36	36.25	36.11	36.11	36.09	36.18	36.00	35.92

Former Soviet Union - Sugar Beet Area Harvested (1000 hectares), Yield (metric tons/acre), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	2221	2235	2249	2262	2276	2290	2303	2317	2331	2346
Yield	15.26	15.36	15.46	15.55	15.65	15.75	15.85	15.95	16.06	16.16
Production	33895	34319	34754	35190	35630	36070	36512	36972	37432	37905

Former Soviet Union - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugar Beets	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56	11.56

Former Soviet Union - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	1793	1752	1915	2010	2069	2109	2139	2161	2181	2197
Production	3918	3967	4018	4068	4119	4170	4221	4274	4327	4382
Net Imports	6975	7093	7015	6971	6950	6941	6929	6930	6926	6922
Exports	935	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Imports	7910	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	10960	10897	10937	10980	11029	11080	11129	11184	11237	11290
Carry-out Stocks	1752	1915	2010	2069	2109	2139	2161	2181	2197	2212

Former Soviet Union - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	37.15	36.93	37.03	37.13	37.24	37.34	37.43	37.53	37.61	37.69
Stocks/Consumption	15.99	17.57	18.38	18.84	19.12	19.31	19.42	19.50	19.56	19.59

Thailand - Sugar Cane Area Harvested (1000 hectares), Yield (metric tons/hectare), and Production (1000 metric tons)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area Harvested	930	1009	1068	1113	1147	1173	1192	1207	1218	1227
Yield	56.00	57.61	58.35	58.82	59.22	59.59	59.95	60.31	60.67	61.03
Production	52080	58118	62332	65479	67922	69871	71467	72789	73911	74885

Thailand - Sugar Extraction Rates (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Sugarcane	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00

Thailand - Sugar Supply and Utilization (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Carry-in Stocks	915	585	736	820	869	901	924	943	961	978
Production	6520	6393	6857	7203	7471	7686	7861	8007	8130	8237
Net Exports	4800	4208	4707	5055	5307	5494	5637	5743	5824	5888
Exports	4800	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2050	2034	2066	2098	2132	2168	2205	2246	2289	2332
Carry-out Stocks	585	736	820	869	901	924	943	961	978	995

Thailand - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Per Capita Consumption	31.06	30.54	30.76	30.99	31.25	31.54	31.85	32.21	32.62	33.03
Stocks/Consumption	28.54	36.21	39.69	41.43	42.26	42.64	42.78	42.79	42.74	42.68

Rest of the World - Sugar Net Exports (1000 metric tons, raw value)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Net Exports	-12247	-12098	-12888	-13245	-13822	-14016	-13966	-13962	-13854	-13626

World - Sugar Prices (U.S. cents/pound)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012
0	8.40	8.42	8.38	8.37	8.32	8.29	8.43	8.43	8.55	8.70