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## 2008 Outlook of the U.S. and World Sugar Markets, 2007-2017

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# TABLE OF CONTENTS

List of Tables	ii
List of Figures	ii
Abstractii	ii
Highlights	V
Introduction	1
Overview of the World Sugar Industry and Sugar Policies  U.S. Sugar Programs and Policies  Domestic and Export Subsidies in the EU, South Africa, and Mexico  Brazil  State Trading Enterprises in Australia, China, and India	6 7 8
Outlook for the World Sugar Industry United States Exporters Importers 1	9 9
Concluding Remarks	7
References	8
Appendix	9

# LIST OF TABLES

No.	<u>Page</u>
1	World Sugar Supply and Utilization, 2003 to 2007 Average
2	U.S. Sugar Production, Consumption, Exports, and Carry-over Stocks, 2007-2017 Average
3	Sugar Production, Consumption, Exports, and Carry-over Stocks in Exporting Countries
4	Sugar Production, Consumption, Imports, and Carry-over Stocks in Importing Countries
	LIST OF FIGURES
No.	<u>Page</u>
1	U.S. and World Sugar Price
2	U.S. Beet and Cane Sugar Production
3	U.S. Sugar Production and Imports
4	U.S. Sugar Consumption and Ending Stocks
5	World Sugar Exports by Country
6	Estimated U.S. and World Sugar Price
7	World Sugar Imports by Country, Major Importers
8	World Sugar Imports by Country, Asian Countries
9	World Sugar Imports by Country, African Countries

#### Abstract

This report evaluates the U.S. and world sugar markets for 2007-2017 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 remain profitable over the next ten years mainly because of the recent surge in world oil prices have increased the conversion of sugar into ethanol in Brazil, while other exporting countries have increased their production in response to those higher prices. Brazil is the largest exporter of sugar, and it is expected that the rate of increase in Brazilian sugar exports may be reduced due to high oil prices. World demand for sugar is expected to grow at a similar rate to world supply, resulting in Carribean sugar prices remaining near the 13.0 -15.5 cents/lb range throughout the forecast period. The U.S. wholesale price of sugar is projected to increase slightly from 26.25 cents/lb in 2007 to 29.9 cents/lb in 2017, if Brazil continues to convert sugar into ethanol. It is projected that Mexico will be able to export 621 thousand metric tons of sugar to the United States by 2017. 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 15.3% between 2007 and 2017 from 26.2 million metric tons to 30.2 million metric tons. Brazil's exports are projected to increase from 14.6 million metric tons in 2007 to 18.7 million metric tons in 2017 even though Brazil uses a substantial amount of sugar cane for ethanol production. World sugar prices also are projected to increase from 11.6 cents/lb in 2007 to 15.35 cents/lb in 2017. U.S. wholesale sugar price is projected to increase from 26.25 cents/lb in 2007 to 29.87 cents/lb in 2017.

U.S. sugar imports are predicted to decrease 16.0% over the 2007-2017 period. The main reason for the lower projected imports is that recent imports for the 2005-2007 period is larger than long term levels. Imports are expected to return to levels that were experienced between 2000 and 2004. U.S. sugar production is projected to increase 23% between 2007 and 2017, however continued high commodity prices may limit sugar production growth from sugar beets. U.S. sugar consumption is projected to increase 11.6% and ending stocks are predicted to increase 5.1%. However, the U.S. sugar industry could face some uncertainty, mainly because of potential increases in sugar imports from Mexico.

Canada's production is predicted to increase slightly between 2007 to 2017. Canada's imports are expected to increase by 18.5%. Consumption is predicted to increase 20.3%, and ending stocks are predicted to increase by 25.0%.

Mexico's production is expected to increase by 13.3%, and exports are expected to increase to 0.4 million metric tons by 2017 due to increases in exports to the United States under the North American Free Trade Agreement (NAFTA).

The European Union (EU) is expected to become an importer by 2017 due to the EU-25 sugar policy reform. Their production is predicted to decrease by 4.1% while consumption will increase by 9.0%.

Production in India is predicted to increase 3.6%, while consumption is predicted to increase 25.0% for the 2007-2017 period. India could import about 2.0 million metric tons by 2017.

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

Most importing countries, including Algeria, China, Egypt, and Indonesia are predicted to increase their imports for the 2007-2017 period.

## 2008 Outlook of the U.S. and World Sugar Markets, 2007-2017

## Won W. Koo and Richard D. Taylor\*

#### INTRODUCTION

Sugar is produced in over 100 countries worldwide. In most years, over 70% of world sugar production is consumed domestically which allowed the development of a large export market. However, 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.

During late 2005 and the first quarter of 2006, world sugar price increased from about \$0.12/lb to over \$0.18/lb because of increased use of sugarcane for ethanol production in Brazil. World sugar price fell to \$0.12/lb in late 2006 and \$0.11/lb by early 2007 due to increased production in other exporting nations. The yearly average price for 2007 was \$0.116/lb.

This report evaluates the U.S. and world sugar industry for 2007-2017 using the Global Sugar Policy Simulation Model developed by Benirschka et al. (1996). This model was run utilizing 2007 data. 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%.

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#### OVERVIEW OF THE WORLD SUGAR INDUSTRY AND SUGAR POLICIES

For the 2003-2007 period, annual global sugar production was approximately 152 million metric tons with about 32% of production exported from its country of origin. The largest sugar producing region is Brazil, followed by the India and the EU (Table 1).

Table 1. World Sugar Supply and Utilization, 2003 to 2007 Average

Table 1. World Suga	ır Suppiy	and Utilization	, 2005 to 200 <i>1</i>	Average		
Country/	Beet/	Consumption	Production	Net Exports	Ending	Per Capita
Region	Cane				Stocks	Consumption
				Kg		
Algeria	В	1,187	10	(1,188)	230	34
Australia	C	1,140	5,077	3,909	290	58
Brazil	C	10,766	28,995	13,636	92	57
Canada	В	1,438	107	(1,338)	99	44
China	B/C	11,360	11,553	(976)	1,686	9
Cuba	C	700	1,460	953	214	61
European Union	В	16,742	19,019	1,821	4,551	47
Egypt	B/C	2,482	1,545	(482)	346	35
Former Soviet	B/C	5,948	2,566	(3,252)	466	20
Union						
India	C	20,690	22,576	773	9,090	18
Indonesia	C	3,840	1,946	(1,888)	1,252	17
Japan	B/C	2,290	900	(767)	395	18
Korea	-	1,193	0	(1,339)	151	24
Mexico	C	5,269	5,709	17	1,576	48
South Africa	C	1,542	2,454	953	667	35
Thailand	C	2,080	6,190	4,123	1,290	31
<b>United States</b>	B/C	9,222	6,872	(2,036)	1,584	33
Rest of World	B/C	45,490	34,879	(12,920)	13,883	19
World	B/C	144,379	151,858	48,793	37,962	21

Per capita sugar consumption was highest in the Cuba followed by Australia and Brazil. Per capita sugar consumption in the United States was 33 kg, which was above world average per capita consumption (21 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 2003-2007 period was 144 million metric tons.

The major sugar exporting countries were Brazil, Thailand, Australia, the EU, and Cuba. These countries accounted for 50% of global exports from 2003 to 2007. A relatively few number of countries dominate world sugar exports, but imports are less concentrated. Major importing countries were the Former Soviet Union (FSU), the United States, Indonesia, Korea, Canada, Algeria, China, and Japan. Imports by these countries accounted for about 24% of all

sugar imports from 2003 to 2007. Under the Lome Convention, the EU was required to import sugar under preferential terms from certain African, Caribbean, and Pacific countries.

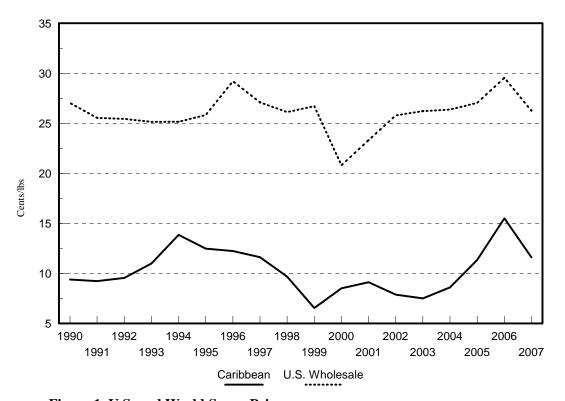


Figure 1. U.S. and World Sugar Prices

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 \$0.18 per pound (Figure 1). Both real Caribbean raw sugar prices and U.S. raw sugar import prices had long-term downward trends but are increasing for the past 4-5 years. Figure 1 shows the dramatic price increase in Caribbean sugar price in late 2005 and 2006. In 2003, the price averaged \$0.07/lb, but it had risen to \$0.12/lb in 2005 and it was \$0.18/lb in June 2006 before falling to \$0.11/lb in 2007. The high Caribbean sugar price also increased the U.S. wholesale price to over \$0.30/lb in 2006, before falling to \$0.26/lb in 2007.

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, however sugar price does respond to changes in consumption. The increase in the Caribbean price of sugar in 2005 and 2006 is mainly because Brazil increased the production the

ethanol from sugarcane. However, the price dropped in 2007 because of increased production of sugar from sugarcane in response to the higher sugar prices in 2005 and 2006.

The United States produces both beet and cane sugar. Cane sugar is produced mainly in Florida, Louisiana, and Texas. Beet sugar is produced largely in the Great Lakes region, Upper Midwest, Great Plains, and far western states. Beet sugar production increased 26.5% from the 1990 to 2007, while cane sugar production increased 19.5% (Figure 2). U.S. total sugar production increased about 24.2% from 6.2 million metric tons in 1990 to 7.7 million metric tons in 2007 (Figure 3).

U.S. consumption of sugar increased by 16.6% from 8.0 million metric tons in 1990 to 9.3 million metric tons in 2007 (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 1990 to 2007 period. Under the North American Free Trade Agreement (NAFTA), Mexico currently is allowed to export excess sugar to the United States. Currently, Mexico has exported less than 100,000 metric tons of sugar into the United States for the last few years, due to production shortages. The U.S.-Central American Free Trade Agreement (CAFTA), which is a free trade agreement (FTA) currently with six Central American countries, provides additional sugar imports of 107,000 metric tons, with additional increases of 3,000 metric tons per year.

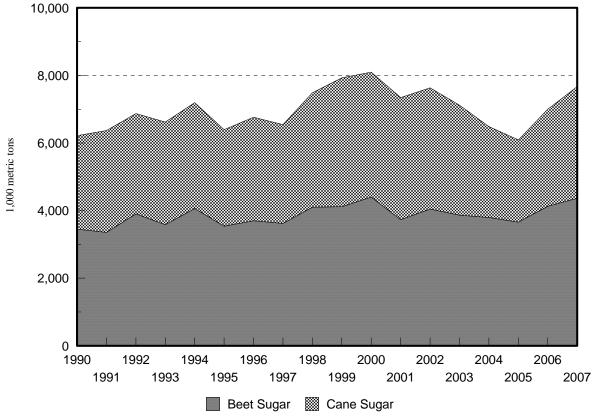


Figure 2. U.S. Beet and Cane Sugar Production

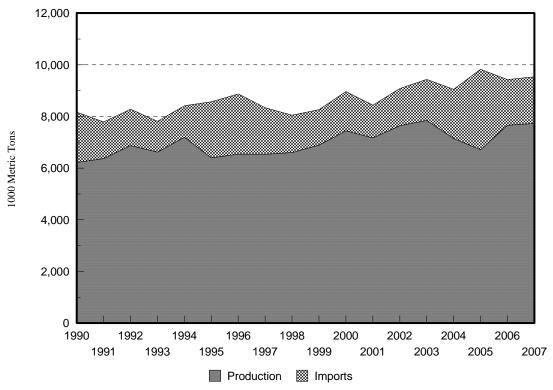


Figure 3. U.S. Sugar Production and Imports

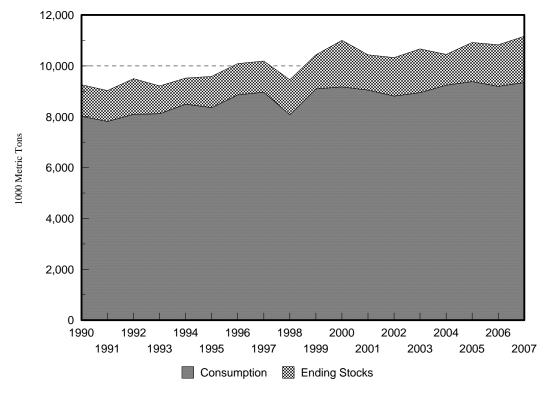


Figure 4. U.S. Sugar Consumption and Ending Stocks

#### 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 which was increased to 1,231,497 metric tons for 2005 due to production losses due to Hurricane Katrina. 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 duties have remained constant since 2000.

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 allowed a rapid reduction in the second-tier duty for Mexican sugar over the past several years. The second-tier duty for Mexican sugar was reduced from 16.11 cents per pound in 1995 to zero in 2008. Duties beyond the import quota for most countries will remain at 15.82 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 6.0 million metric tons of sugar in 2005 and consumed 5.4 million metric tons in the same year. Its net exports were 243 thousand metric tons 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. Furthermore, the price of HFCS has increased substantially as a result of increased corn price. If the price of HFCS remains near the current levels, Mexico may not use HFCS for beverages. Currently there are transportation and use taxes on HFCS in Mexico. Mexico has been declared an excess sugar producer which will allow additional exports into the United States.

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, with additional increases of about 3,000 metric tons per year. This increase, however, 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. 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 2005, the EU converted the sugar support program to direct payments which allows producers to plan for the market.

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 has proposed to limit sugar production to about 14.9 million metric tons per year. In 2007, the EU produced 17.5 million metric tons of sugar. If the EU limits sugar production to the stated level, the EU will become an importer of sugar.

South Africa has both internal price supports and export subsidies. South Africa reduced its subsidized exports by 200,000 tons to 702,208 tons although net exports for 2007 were 1.2 million metric tons. 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 306% 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 15.5 million metric tons in 2007. Sugar that is converted into ethanol is subsidized at prices higher than the world price. Recent increases in the world oil price has increased the price of ethanol which in turn increased Brazil's conversion of sugar into ethanol, reducing potential sugar exports from Brazil. That reduction in the growth of exports has increased world sugar prices.

## 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 15.3%, from 26.2 to 30.2 million metric tons over the 2007-2017 period. Exports of sugar in most countries will increase for 2007-2017. Exports will increase 28.0% for Brazil, and 12.0% for Australia.

World sugar price, referred to as the Caribbean price of sugar, is projected to increase about 32% from 11.60 cents/lb in 2007 to 15.35 cents/lb in 2017 (Figure 5) because substantial diversion of sugar cane to ethanol production.

#### **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 8.9 million metric tons in 2017. The increase in sugar production is due mainly to a combination of higher world and U.S. sugar prices and increases in consumption for the time period. However, growth in sugar production from sugar beets may be limited if high prices for competing crops remain at 2007 levels. U.S. sugar consumption is predicted to increase 12.0% from 9.3 million metric tons (the 2005-2007 average) to 10.4 million metric tons in 2017. Ending stocks are also predicted to increase 5.1% (Table 2). Imports are predicted to decrease 32% from the 2005-07 average. However, the imports depend upon Mexico's sugar production and consumption. The decreased levels of imports for 2017 are due to short term higher levels in 2005 through 2007. Average imports levels for 2000 through 2004 was 1.7 million metric tons per year. Therefore, imports are expected to return to long term levels.

Table 2. U.S. Sugar Production, Consumption, Imports, and Carry-over Stock, 2007-2017 Average

	<i>j</i> = <u>1</u> <i>j</i>			<i>)</i>
	Average			% Change
	(2005-2007)	2007	2017	(2005-07) to 2017
		-1,000 metric to	ons	
Production	6,920	7,671	8,929	29.04
Beet	4,049	4,363	5,371	32.66
Cane	2,871	3,309	3,559	23.96
Net Imports	2,229	1,805	1,516	-31.98
Per capita Consumption	64	63	65	1.57
Consumption	9,306	9,344	10,389	11.64
Carry-over Stocks	1,664	1,819	1,748	5.07

## **Exporters**

The EU has changed the internal sugar policy by restricting support. This has reduced production. Because of that change, the EU has become a net importer of sugar. EU imports are predicted to decrease from 1.6 million metric tons in 2007 to 1.3 million metric tons in 2017 (Figure 6). Sugar production in the EU is predicted to decrease 4.1% and consumption is predicted to increase from 17.7 million metric tons for the 2005-2007 average to 19.3 million tons in 2017 (Table 3). Most of the increase in consumption is due to the additional countries now included in the EU.

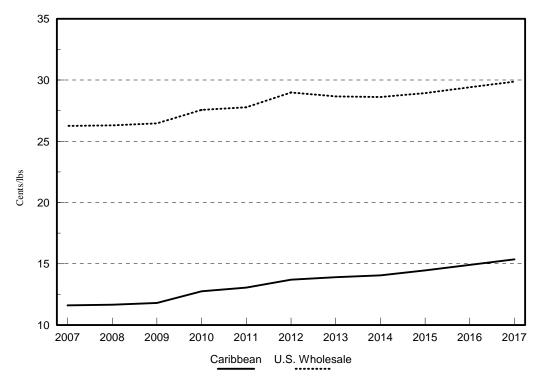


Figure 5. Estimated U.S. and World Sugar Prices

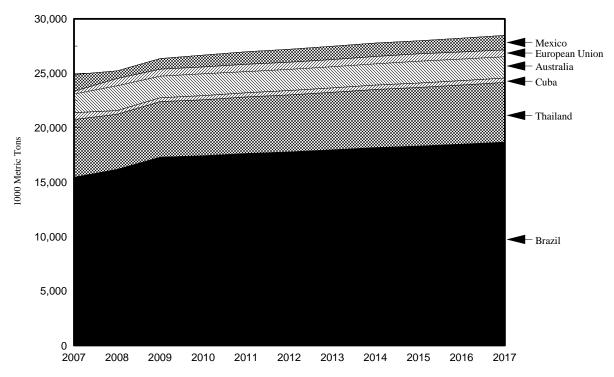


Figure 6. World Sugar Export by Country

Brazil's production is predicted to increase by 4.9% from 30.1 million metric tons in 2005-2007 to 31.6 million metric tons in 2017 (Table 3). Brazil's exports are predicted to increase from 14.6 million metric tons in 2005-2007 to 18.7 million metric tons in 2017.

Its domestic consumption is predicted to increase by 18.1% from 10.9 million metric tons in 2005-2007 to 12.9 million metric tons in 2017. Much of the increase in consumption is due to ethanol production.

Thailand's exports are predicted to increase by 30.0% from the 2005-2007 average of 4.2 million metric tons for the 2005-2007 average to 5.5 million metric tons in 2017 (Table 3). Most of the increase is due to small exports in 2005. Consumption increases from 2.1 million metric tons for the 2005-2007 average to 2.5 million metric tons in 2017. Sugar production in the country also is predicted to increase by 27.7% from 6.3 million metric tons to 8.0 million metric tons in 2017. However, the increase in production would be only 10.9% compared to the 2007 production.

Australia's exports are predicted to increase by 4.6% from 3.7 million metric tons for the 2005-2007 average to 3.9 million metric tons in 2017 (Table 3), due mainly to increased sugar production, which is predicted to increase by 5.0% from 4.9 million metric tons to 5.2 million metric tons in 2017. Sugar consumption is expected to increase by 11.4% from 1.1 million metric tons to 1.3 million metric tons in 2017.

Cuba's exports are predicted to decrease by 40.6% from the 2005-2007 level to 2017 (Table 3). It is predicted that Cuba will increase its sugar production 3.4%, while consumption is predicted to increase by 13.3%. 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 by 13.3% from 5.7 million metric tons in 2005-2007 to 6.4 million metric tons in 2017. Mexico is expected to export 621 thousand metric tons by 2017, mainly to the United States under NAFTA. Sugar consumption is predicted to increase by 11.1% from 5.2 million metric tons in 2005-2007 to 5.8 million metric tons in 2017 under the assumption that Mexico does not convert to HFCS in their soft drink industry. Ending stocks are predicted to increase by 17.6%. 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 by 22.0% from 2.5 million metric tons in 2005-2007 to 3.0 million metric tons in 2017. South Africa's exports are predicted to increase slightly by 2017. Sugar consumption is predicted to increase by 19.3% and ending stocks are predicted to decrease by 31.0%.

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

	Average			% change
	(2005-2007)	2007	2017	(2005-07) to 2017
	1,000	metric tons		
European Union				
Production	18,771	17,490	18,003	-4.1
Net Exports	828	(1,551)	(1,333)	NA
Consumption	17,733	18,400	19,327	9.0
Carry-over	4,239	3,840	3,895	-8.1
Brazil				
Production	30,133	31,100	31,601	4.9
Net Exports	14,597	15,450	18,675	27.9
Consumption	10,943	11,400	12,927	18.1
Carry-over	(385)	(385)	152	NA
Thailand				
Production	6,252	7,200	7,984	27.7
Net Exports	4,214	5,300	5,478	30.0
Consumption	2,117	2,200	2,494	17.8
Carry-over	1,340	1,980	1,053	-21.4
Australia				
Production	4,940	4,700	5,185	5.0
Net Exports	3,742	3,496	3,916	4.6
Consumption	1,132	1,100	1,263	11.4
Carry-over	188	111	253	34.6
Cuba				
Production	1,150	1,000	1,189	3.4
Net Exports	685	635	407	-40.6
Consumption	700	700	793	13.3
Carry-over	205	175	141	-31.2
Mexico				
Production	5,689	5,830	6,445	13.3
Net Exports	(179)	240	621	NA
Consumption	5,229	5,150	5,810	11.1
Carry-over	1,559	1,726	1,833	17.6
South Africa	,	,	,	
Production	2,465	2,500	3,008	22.0
Net Exports	1,085	1,035	1,104	1.6
Consumption	1,568	1,585	1,871	19.3
Carry-over	508	275	351	-31.0

#### **Importers**

Figures 7 through 9 show sugar imports by the major sugar importing countries. Sugar imports of selected Asian and African countries are expected to increase by 22.6% and 32.0%, respectively, for the 2007-2017 period.

Canada's production is predicted to increase above the 2005-2007 average of 105 thousand metric tons to 120 thousand tons by the year 2017, and consumption is predicted to increase from 1.5 million metric tons to 1.8 million metric tons in 2017 (Table 4). As a result, Canada's imports are predicted to increase 18.5% from 1.4 million metric tons to 1.6 million metric tons in 2017.

The FSU's production is predicted to increase by 17.4% from the 2005-2007 average of 2.9 million metric tons to 3.4 million metric tons in 2017, and consumption is predicted to increase 8.6% from 5.8 million metric tons to 6.3 million metric tons for the same period. Imports are predicted to increase 1.6% from the 2005-2007 average (Table 4).

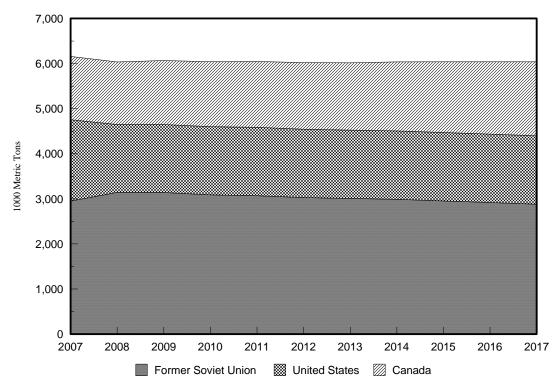


Figure 7. World Sugar Imports by Country, Major Importers

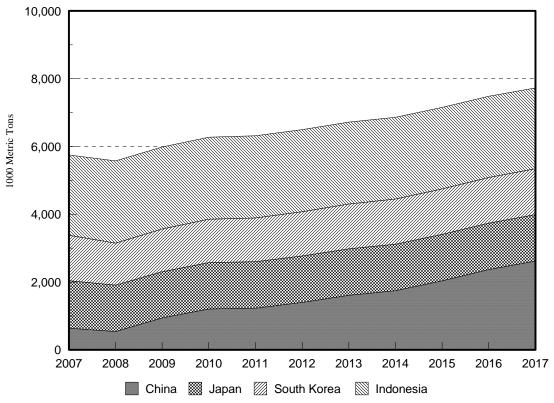


Figure 8. World Sugar Imports by Country, Asian Countries

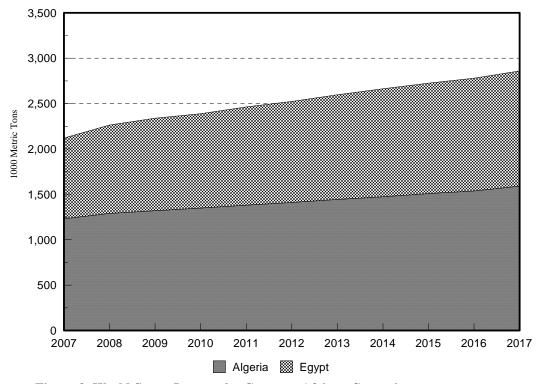


Figure 9. World Sugar Imports by Country, African Countries

China is expected to increase its imports by about 179.5% from 0.9 million metric tons in 2005-2007 to 2.6 million metric tons in 2017 (Table 4). China's production is predicted to increase by 20.9% from 12.4 million metric tons for the 2005-2007 average to 15.0 million metric tons in 2017, and consumption is predicted to increase by 36.0% from 12.9 million metric tons to 17.6 million metric tons for the period.

India's production is predicted to increase by 3.6% from 27.9 million metric tons in 2005-2007 to 28.8 million metric tons in 2017. However, India's imports are expected to remain level throughout the projection period.

Japan's imports are predicted to decrease by 1.6% from the 2005-2007 average to 1.4 million metric tons in 2017, due to a slight decrease in domestic consumption and a slight increase in production (Table 4).

In South Korea, consumption is predicted to increase by 12.7% for the time period. As a result, South Korea's imports are predicted to increase 1.2% for the period. There is no domestic production of either sugar cane or sugar beets in South Korea.

In Algeria, consumption is predicted to increase by 30.7% from 1.2 million metric tons in 2005-2007 to 1.6 million metric tons in 2017. This increase in consumption results in imports increasing from 1.3 million metric tons for the 2005-2007 average to 1.6 million metric tons in 2017.

Egypt's imports are predicted to increase by 46.3% from 0.9 million metric tons in 2005-2007 to 1.3 million metric tons in 2017, due mainly to increased consumption. Consumption is predicted to increase 25.8% from 2.5 million metric tons to 3.1 million metric tons in 2017.

Indonesia's imports are predicted to increase by 8.5% from 2.2 million metric tons in 2005-2007 to 2.4 million metric tons in 2017. Consumption is predicted to increase from 4.1 million metric tons for the 2005-2007 average to 4.8 million metric tons in 2017.

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

	Average			CKS IN IMPORTING Countries  % Change
	(2005-07)	2007	2017	(2005-07) to 2
		1,000 metric to		
Algeria		•		
Production	10	10	11	6.5
Net Imports	1,268	1,350	1,591	25.4
Consumption	1,225	1,200	1,601	30.7
Carry-over	277	284	264	-4.8
Canada	_,,			
Production	105	105	120	14.3
Net Imports	1,385	1,375	1,641	18.5
Consumption	1,458	1,425	1,755	20.3
Carry-over	212	94	265	25.0
China				
Production	12,402	10,500	14,997	20.9
Net Imports	937	1,000	2,618	179.5
Consumption	12,933	11,500	17,594	36.0
Carry-over	1,450	1,703	2,133	47.1
Egypt	,	,	,	
Production	1,626	1,601	1,883	15.8
Net Imports	898	903	1,286	43.2
Consumption	2,501	2,441	3,147	25.8
Carry-over	359	356	385	7.3
Former Soviet Union				
Production	2,883	2,500	3,384	17.4
Net Imports	2,837	2,790	2,881	1.6
Consumption	5,780	5,400	6,275	8.6
Carry-over	437	470	365	-16.4
India				
Production	27,853	21,140	28,846	3.6
Net Imports	2,087	1,460	2,025	-3.0
Consumption	21,428	19,785	26,779	25.0
Carry-over	10,885	4,175	17,544	59.6
Indonesia	,	•	•	
Production	1,983	2,100	2,400	21.0
Net Imports	2,197	1,800	2,383	8.5
Consumption	4,083	3,850	4,784	17.2
Carry-over	1,323	1,170	1,419	7.2
Japan	,	,	,	
Production	900	880	918	2.0
Net Imports	1,395	1,390	1,373	-1.6
Consumption	2,333	2,300	2,290	-1.9
Carry-over	406	372	430	6.0
Korea				
Production	0	0	0	NA
Net Imports	1,337	1,331	1,353	1.2
Consumption	1,200	1,196	1,353	12.7
Carry-over	152	150	155	2.2

#### CONCLUDING REMARKS

This report provides an overview of the U.S. and world sugar markets for 2007-2017 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 15.3% from 26.2 million metric tons in 2007 to 30.2 million metric tons in 2017. The price of Caribbean sugar is expected to increase by about 32% from 11.6 cents/lb in 2007 to 15.35 cents/lb in 2017, because the substantial increases in ethanol production from sugar cane in Brazil.

Exports are predicted to increase for Brazil, Australia, South Africa, and Thailand, due to the increased sugar price.

Imports by most importing countries are predicted to increase from the 2005-07 average to 2017. China's imports are predicted to increase by 179%, while Japan's imports are predicted to decrease by 1.6%. Imports by Egypt and Algeria are predicted to increase 43.2% and 25.4%, respectively.

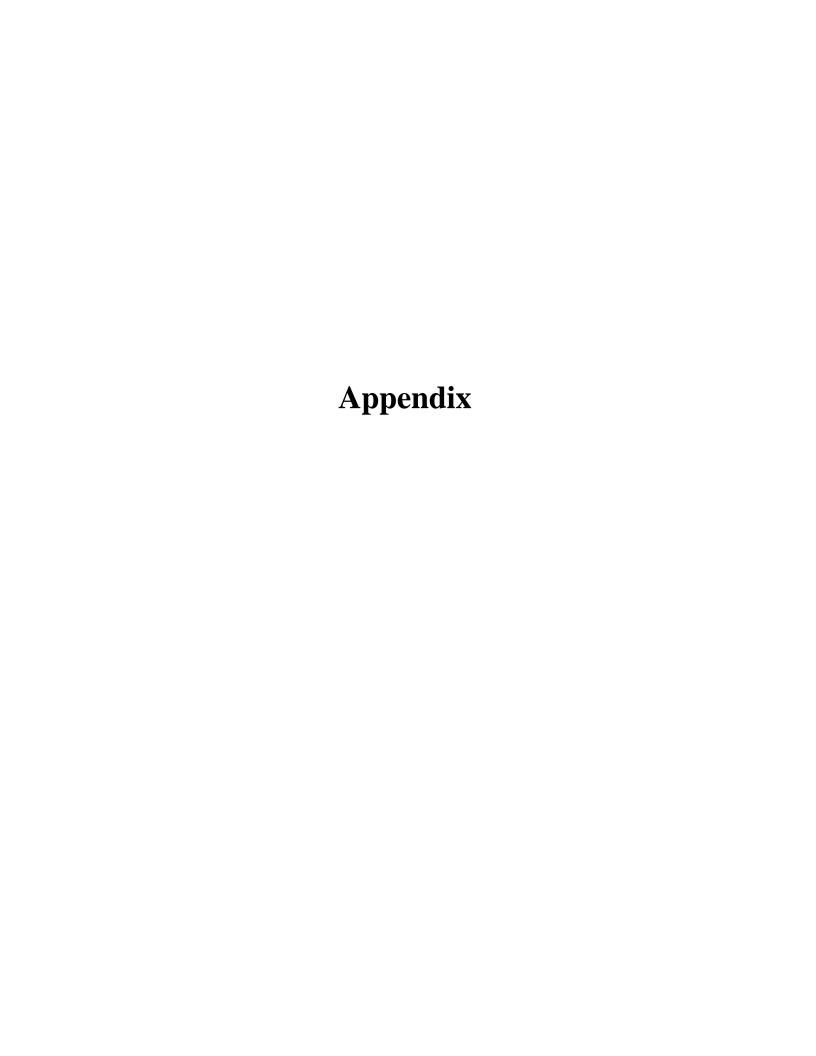
U.S. sugar consumption is predicted to increase by 11.6% for the forecasting period, while production is expected to increase by 33.0% for beet sugar and by 24% for cane sugar. Increases in beet sugar production may be limited due to high prices for other commodities such as corn, soybeans, and wheat. However, if the price of corn, soybeans, and wheat remains higher than the prices projected by FAPRI and USDA, the U.S. domestic production of sugar could be much smaller and imports could be higher. Imports are predicted to decrease by 32.0% for the period but most of the decreases are due to abnormally high levels of imports between 2005 and 2007. Imports are expected to return to long term levels. Mexico could have an impact on the U.S. sugar industry if the country uses HFCS in its soft drink industry. However, the recent high prices of HFCS could limit conversion from sugar to HFCS of the soft drink industry. Otherwise Mexico's exports to the United States could be relatively small, even though NAFTA allows unlimited exports beginning in 2008.

The large price increase in world sugar that occurred in late 2005 and 2006 will not be maintained. In the first half of 2007, Caribbean sugar price fell to 11 cents per pound from a high of 15.5 cents per pound in late 2006. The increased ethanol production in Brazil in 2005 and 2006 caused increases in the world price of sugar, which resulted in a production increase in other sugar exporting countries. Those production increases will continue to offset Brazil's ethanol production requirements.

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#### World Sugar Policy Simulation Model

#### 2008 Baseline Solution

				/ I II / I
United States	- Nominal Sugai	r Beet and Sugarcan	e Farm Prices	(dollars/short ton)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	40.00	41.37	37.93	37.99	38.17	39.43	39.67	41.05	40.69	40.63	40.99	41.53	42.07
Sugarcane	27.00	28.96	26.34	26.40	26.59	27.89	28.14	29.56	29.19	29.13	29.50	30.06	30.61

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

•												
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
11.35	15.50	11.60	11.65	11.80	12.75	13.05	13.70	13.90	14.05	14.45	14.90	15.35
Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
10.07	6.64	6.00	6.00	6.00	6.10	6.00	6.50	6.00	5.80	5.70	5.70	5.70
21.28	22.14	17.60	17.65	17.80	18.85	19.05	20.20	19.90	19.85	20.15	20.60	21.05
27.04	29.54	26.25	26.30	26.46	27.56	27.77	28.98	28.66	28.61	28.93	29.40	29.87
43.54	49.58	43.54	43.62	43.83	45.32	45.61	47.25	46.82	46.75	47.18	47.82	48.46
	2005 11.35 Quota 10.07 21.28 27.04	2005 2006 11.35 15.50 Quota Quota 10.07 6.64 21.28 22.14 27.04 29.54	2005         2006         2007           11.35         15.50         11.60           Quota         Quota         Quota           10.07         6.64         6.00           21.28         22.14         17.60           27.04         29.54         26.25	2005         2006         2007         2008           11.35         15.50         11.60         11.65           Quota         Quota         Quota         Quota           10.07         6.64         6.00         6.00           21.28         22.14         17.60         17.65           27.04         29.54         26.25         26.30	2005         2006         2007         2008         2009           11.35         15.50         11.60         11.65         11.80           Quota         Quota         Quota         Quota         Quota         Quota         0.00         6.00         6.00         6.00         6.00         20.00         21.28         22.14         17.60         17.65         17.80         27.04         29.54         26.25         26.30         26.46	2005         2006         2007         2008         2009         2010           11.35         15.50         11.60         11.65         11.80         12.75           Quota         Quota         Quota         Quota         Quota         Quota         Quota         Quota         0.00         6.00         6.00         6.10         6.10         21.28         22.14         17.60         17.65         17.80         18.85         27.04         29.54         26.25         26.30         26.46         27.56	2005         2006         2007         2008         2009         2010         2011           11.35         15.50         11.60         11.65         11.80         12.75         13.05           Quota         Quota         Quota         Quota         Quota         Quota         Quota         Quota         Quota         0.00         6.00         6.10         6.00         6.00         6.10         6.00         6.00         21.28         22.14         17.60         17.65         17.80         18.85         19.05         27.04         29.54         26.25         26.30         26.46         27.56         27.77	2005         2006         2007         2008         2009         2010         2011         2012           11.35         15.50         11.60         11.65         11.80         12.75         13.05         13.70           Quota         0.00         6.00         6.00         6.00         6.00         6.50         6.50         21.28         22.14         17.60         17.65         17.80         18.85         19.05         20.20         27.04         29.54         26.25         26.30         26.46         27.56         27.77         28.98	2005         2006         2007         2008         2009         2010         2011         2012         2013           11.35         15.50         11.60         11.65         11.80         12.75         13.05         13.70         13.90           Quota         20.00         6.00         6.00         6.10         6.00         6.50         6.00           21.28         22.14         17.60         17.65         17.80         18.85         19.05         20.20         19.90           27.04         29.54         26.25         26.30         26.46         27.56         27.77         28.98         28.66	2005         2006         2007         2008         2009         2010         2011         2012         2013         2014           11.35         15.50         11.60         11.65         11.80         12.75         13.05         13.70         13.90         14.05           Quota         20.00         6.50         6.00         5.80           21.28         22.14         17.60         17.65         17.80         18.85         19.05         20.20         19.90         19.85           27.04         29.54         26.25         26.30         26.46         27.56         27.77         28.98         28.66         28.61	2005         2006         2007         2008         2009         2010         2011         2012         2013         2014         2015           11.35         15.50         11.60         11.65         11.80         12.75         13.05         13.70         13.90         14.05         14.45           Quota         20.00         5.80         5.70         5.70         21.28         22.14         17.60         17.65         17.80         18.85         19.05         20.20         19.90         19.85         20.15           27.04         29.54         26.25         26.30         26.46         27.56         27.77         28.98         28.66         28.61         28.93	2005         2006         2007         2008         2009         2010         2011         2012         2013         2014         2015         2016           11.35         15.50         11.60         11.65         11.80         12.75         13.05         13.70         13.90         14.05         14.45         14.90           Quota         20.00         5.80         5.70         5.70           21.28         22.14         17.60         17.65         17.80         18.85         19.05         20.20         19.90         19.85         20.15         20.60           27.04         29.54         26.25         26.30         26.46         27.56         27.77         28.98         28.66         28.61         28.93         29.40

#### United States - Area Harvested (1000 acres)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	1243	1304	1241	1274	1289	1307	1319	1335	1349	1364	1381	1402	1424
Sugarcane	858	847	832	847	846	849	853	861	868	876	886	898	912
Total Area	2101	2150	2073	2121	2135	2156	2172	2196	2217	2240	2268	2300	2336

#### United States - Yields (short tons/acre)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	22.10	26.10	25.40	25.84	26.02	26.17	26.26	26.39	26.47	26.65	26.85	27.05	27.26
Sugarcane	28.80	33.00	35.00	34.60	34.45	34.33	34.34	34.41	34.53	34.66	34.80	34.95	35.10

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	27468	34024	31532	32919	33540	34188	34637	35219	35706	36337	37083	37923	38823
Sugarcane	24716	27938	29110	29301	29136	29165	29298	29629	29975	30369	30845	31398	31998

	_		_	
United States -	Sugar	Evtraction	Pates	(narcant)

Variable	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	16.20	14.70	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Sugarcane	12.10	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26	12.26

#### United States - Sugar Production (1000 short tons)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beet Sugar	4032	4549	4809	5020	5115	5214	5282	5371	5445	5541	5655	5783	5921
Cane Sugar	2681	3166	3647	3592	3572	3576	3592	3633	3675	3723	3782	3849	3923
All Sugar	6713	7715	8456	8613	8687	8789	8874	9003	9120	9265	9437	9633	9843

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

				,		. (		,	,				
Variable	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Tariff Rate Quota	2588	1624	1256	1256	1256	1256	1256	1256	1256	1256	1256	1256	1256
Below Quota Tariff	0	0	0	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	15.36	15.36	15.36

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
TRQ Status	Quota												
Implicit Tariff	7.00	4.00	6.00	6.00	6.00	6.10	6.00	6.50	6.00	5.80	5.70	5.70	5.70
Total Imports	1949	2524	1886	1776	1781	1786	1791	1791	1791	1791	1791	1791	1791
Quota-sugar Imports	1600	2074	1571	1576	1581	1586	1591	1591	1591	1591	1591	1591	1591
Other Sugar Imports	500	349	450	315	200	200	200	200	200	200	200	200	200
Total Exports	203	422	120	120	120	120	120	120	120	120	120	120	120
Net Imports	1746	2102	1766	1656	1661	1666	1671	1671	1671	1671	1671	1671	1671

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	1208	1540	1799	2005	1911	1881	1923	1893	1880	1886	1896	1907	1917
Production	7399	8445	8516	8613	8687	8789	8874	9003	9120	9265	9437	9633	9843
Net Imports	3431	1949	1990	1656	1661	1666	1671	1671	1671	1671	1671	1671	1671
Consumption	10340	10135	10300	10417	10559	10610	10736	10761	10934	11085	11210	11329	11452
Carry-out Stocks	1698	1799	2005	1911	1881	1923	1893	1880	1886	1896	1907	1917	1927

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	71.42	69.38	69.88	70.05	70.37	70.07	70.28	69.81	70.30	70.71	70.94	71.12	71.33
Stocks/Consumption	16.42	17.75	19.47	18.34	17.81	18.13	17.63	17.47	17.25	17.11	17.01	16.92	16.83

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

		•		, ,									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	21	20	20	21	21	21	21	21	21	21	21	21	21
Yield	45.00	47.00	47.00	47.97	48.27	48.73	49.15	49.58	50.00	50.43	50.85	51.28	51.71
Production	932	940	940	1002	1014	1021	1029	1035	1041	1046	1051	1056	1061

#### Canada - Sugar Beet Exogenous Variables

Variable	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Extraction Rate (%)	11.30	11.30	11.30	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)

	-												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	160	171	219	223	225	228	232	236	239	242	247	253	259
Production	105	105	105	113	115	115	116	117	118	118	119	119	120
Net Imports	1375	1375	1404	1389	1419	1440	1461	1479	1493	1531	1568	1604	1641
Imports	1390	1390	1420	#N/A									
Exports	15	15	16	#N/A									
Consumption	1425	1450	1500	1500	1530	1551	1574	1592	1608	1644	1681	1718	1755
Carry-out Stocks	194	219	223	225	228	232	236	239	242	247	253	259	265

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	43.39	43.76	44.86	44.47	44.96	45.22	45.50	45.68	45.75	46.42	47.08	47.72	48.38
Stocks/Consumption	13.61	15.10	14.87	14.97	14.93	14.96	14.99	15.02	15.06	15.03	15.04	15.07	15.11

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	650	645	665	666	668	672	676	681	686	691	696	701	707
Yield	73.00	74.00	74.30	74.30	74.50	74.75	75.01	75.28	75.55	75.82	76.09	76.36	76.63
Production	47450	47730	49410	49445	49741	50193	50700	51259	51822	52387	52967	53558	54157

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarcane	11.80	11.80	11.80	11.80	11.80	11.80	11.90	11.90	11.90	11.90	11.90	11.90	11.90
Mexico - Sugar Supply ar	nd Utilizat	tion (1000	) metric to	ns, raw v	alue)								
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	2045	1297	1656	1726	1737	1747	1756	1766	1776	1787	1797	1807	1820
Production	5604	5633	5830	5835	5869	5923	6033	6100	6167	6234	6303	6373	6445
Net Imports	-626	329	-240	-659	-639	-626	-670	-661	-660	-668	-674	-649	-621
Exports	866	135	440	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	240	464	200	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	5326	5210	5150	5165	5220	5287	5354	5428	5496	5555	5619	5712	5810
Carry-out Stocks	1294	1656	1726	1737	1747	1756	1766	1776	1787	1797	1807	1820	1833
Mexico - Per Capita Suga	r Consur	nption (ki	lograms)	and Stoc	ks to Use	Ratio (pe	rcent)						
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	48.28	46.67	45.59	45.18	45.17	45.24	45.32	45.45	45.51	45.51	45.57	45.86	46.19
Stocks/Consumption	24.30	31.79	33.51	33.62	33.46	33.21	32.99	32.72	32.51	32.35	32.17	31.86	31.56
·													
•													
Algeria - Sugar Beet Area		•											
Algeria - Sugar Beet Area	Harvest 2005	ed (1000 2006	2007	2008	netric tons	s/hectare) 2010	, and Prod 2011	duction (10 2012	00 metric to 2013	ons) 2014	2015	2016	2017
Area Harvested	2005 7	2006		2008		2010	2011 7	2012 7	2013 7	2014	7	7	7
Algeria - Sugar Beet Area Area Harvested Yield	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014			

Algeria - Sugar Extraction Rates (percent)

Sugarbeet

2005

7.41

2006

7.41

2007

7.41

2008

7.41

2009

7.41

2010

7.41

2011

7.41

2012

7.41

2013

7.41

2014

7.41

2015

7.41

2016

7.41

2017

7.41

Algeria - Sugar Supply	and Utilization	(1000 metric tons	raw value)
Algeria Gugai Guppiy	and Othization	( 1000 IIICIIIC IOIIS	, law value,

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	134	284	284	264	262	261	261	261	261	262	262	263	263
Production	10	11	10	11	11	11	11	11	11	11	11	11	11
Net Imports	1350	1225	1230	1290	1320	1348	1381	1410	1444	1474	1508	1537	1591
Exports	30	50	250	#N/A									
Imports	1380	1275	1480	#N/A									
Consumption	1200	1225	1250	1302	1331	1359	1392	1421	1455	1485	1519	1548	1601
Carry-out Stocks	284	284	264	262	261	261	261	261	262	262	263	263	264

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	34.01	33.97	33.92	34.58	34.62	34.62	34.73	34.72	34.82	34.81	34.90	34.88	35.37
Stocks/Consumption	23.67	23.18	21.12	20.12	19.63	19.20	18.75	18.38	17.98	17.65	17.30	17.00	16.48

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	428	421	416	417	418	419	420	422	423	424	425	426	428
Yield	93	86	85	86	87	88	88	89	89	90	90	91	91
Production	39633	36206	35360	36051	36412	36736	37067	37385	37716	38033	38342	38659	38982

#### Australia - Sugar Extraction Rate (percent)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarcane	13.30	13.30	13.30	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)

0	•	,			,								
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	343	291	162	111	135	228	231	234	236	239	240	242	247
Production	5297	4822	4700	4795	4843	4886	4930	4972	5016	5058	5099	5142	5185
Net Exports	4035	3696	3496	3645	3609	3727	3755	3788	3821	3855	3887	3900	3916
Exports	4039	3700	3500	#N/A									
Imports	4	4	4	#N/A									
Consumption	1150	1150	1100	1125	1140	1156	1171	1182	1193	1202	1210	1237	1263
Carry-out Stocks	291	162	111	135	228	231	234	236	239	240	242	247	253

Australia - Per Capita Sug	gar Consu	umption (k	ilograms)	and Stoo	cks to Use	e Ratio (p	ercent)						
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	58.33	57.81	54.86	55.68	55.98	56.27	56.58	56.70	56.82	56.84	56.86	57.69	58.51
Stocks/Consumption	25.30	14.09	10.09	12.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
Brazil - Sugar Supply and		•			•								
0 0: . 1	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	585	-285	-485	-385	270	135	163	156	156	155	155	153	153
Production	26850	31450	32100	28855	29345	29616	29900	30184	30467	30751	31034	31318	31601
Net Exports	12690	15650	15450	16175	17299	17431	17637	17787	17972	18177	18315	18495	18675
Exports	12690	15650	15450	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	0	0	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	10630	10800	11400	12025	12182	12158	12270	12397	12496	12574	12720	12823	12927
Carry-out Stocks	-285	-485	-385	270	135	163	156	156	155	155	153	153	152
Brazil - Per Capita Sugar	Consump	otion (kilog	grams) an	nd Stocks	to Use Ra	atio (perc	ent)						
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	56.77	57.05	59.63	62.28	62.46	61.78	61.80	61.88	61.82	61.71	61.93	61.94	61.94
Stocks/Consumption	-2.68	-4.49	-3.38	2.25	1.11	1.34	1.27	1.26	1.24	1.23	1.21	1.19	1.17
China Area Harvastad (*	1000 boot	toros)											
China - Area Harvested (1		,	2007	2000	2000	2010	2011	2012	2012	2014	2015	2016	2017
Curar Doots	2005	2006	2007	2008	2009	2010	2011		2013	2014	2015	2016	
Sugar Beets	234	368	350	358	353	357	365	366	373	374	378	382	385
Sugarcane	1500	1700	1890	1891	1896	1906	1918	1929	1940	1950	1959	1969	1979
Total Area	1734	2068	2240	2248	2249	2263	2284	2295	2314	2324	2337	2351	2365
China - Yields (metric tons	s/hectare	)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	37.00	37.00	38.00	37.86	37.89	37.95	38.04	38.16	38.29	38.45	38.62	38.80	39.00
Sugarcane	65.00	72.00	72.20	72.44	72.67	72.89	73.11	73.33	73.54	73.75	73.96	74.17	74.38
China - Production (1000	metric to	ns)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	8658	13616	13300	13544	13364	13550	13899	13960	14300	14377	14595	14804	15032
Sugarcane													

China - Sugar Extraction	Rates (p	ercent)	

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarbeets	10.15	10.15	10.15	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	9.15	9.15	9.15

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	1671	703	1728	1918	1934	1988	1978	1999	2003	2032	2065	2090	2113
Production	10500	12855	13850	13906	13965	14085	14243	14358	14507	14619	14742	14867	14997
Beet Sugar	877	1358	1350	1375	1356	1375	1411	1417	1451	1459	1481	1503	1526
Cane Sugar	8569	11497	12500	12532	12608	12710	12832	12941	13056	13160	13260	13365	13471
Net Imports	1000	1170	640	539	941	1206	1230	1399	1609	1746	2035	2369	2618
Exports	234	160	210	#N/A									
Imports	1234	1330	850	#N/A									
Consumption	11500	13000	14300	14430	14852	15300	15452	15752	16087	16333	16751	17214	17594
Carry-out Stocks	703	1728	1918	1934	1988	1978	1999	2003	2032	2065	2090	2113	2133

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	8.74	9.82	10.73	10.77	11.02	11.27	11.30	11.44	11.60	11.70	11.93	12.18	12.38
Stocks/Consumption	6.11	13.29	13.41	13.40	13.38	12.93	12.93	12.72	12.63	12.64	12.48	12.27	12.13

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	410	385	335	344	344	345	347	348	350	350	351	352	353
Yield	29	29	29	30	31	31	31	32	32	32	32	32	33
Production	11890	11165	9715	10315	10535	10684	10865	10978	11111	11203	11288	11393	11503

#### Cuba - Sugar Extraction Rate (percent)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarcane	10.34	10.34	10.34	10.34	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)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	400	330	260	175	194	208	206	200	191	181	172	162	151
Production	1300	1150	1000	1067	1089	1105	1123	1135	1149	1158	1167	1178	1189
Net Exports	800	620	635	331	348	376	389	399	401	399	400	403	407
Consumption	700	700	700	717	728	731	740	746	757	768	777	785	793
Carry-out Stocks	180	260	175	194	208	206	200	191	181	172	162	151	141

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	60.53	60.24	59.96	61.12	61.79	61.74	62.28	62.50	63.12	63.78	64.23	64.63	65.02
Stocks/Consumption	25.71	37.14	25.00	27.03	28.51	28.22	27.04	25.56	23.96	22.41	20.86	19.29	17.71
Egypt - Area Harvested (													
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	72	75	77	76	77	77	77	77	77	78	78	79	79
Sugarcane	125	126	125	126	127	129	130	132	134	135	137	139	141
Total Area	197	201	202	202	204	206	208	209	211	213	215	218	220
Egypt - Yields (metric ton:	s/hectare	)											
3,7 (	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	54.50	55.00	56.00	56.00	56.40	56.69	57.00	57.31	57.62	57.93	58.24	58.55	58.86
Sugarcane	103.90	103.47	102.90	102.86	102.95	103.15	103.43	103.79	104.22	104.71	105.24	105.81	106.42
Egypt - Production (1000	metric tor	าร)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	3924	4125	4284	4281	4338	4381	4410	4431	4457	4509	4554	4603	4651
Sugarcane	12988	12986	12863	12959	13105	13275	13469	13682	13915	14165	14430	14710	15003
Egypt - Sugar Extraction	Rates (ne	rcent)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	12.75	12.75	12.75	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	8.60	8.60	8.60	8.60	8.60	8.60	8.60	8.60	8.60	8.60	8.60
Egypt - Sugar Supply and		,		•									
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	293	356	360	360	361	363	364	366	369	372	375	378	382
Production	1601	1627	1650	1660	1680	1700	1721	1742	1765	1793	1822	1852	1883
Beet Sugar	499	525	550	546	553	559	562	565	568	575	581	587	593
Cane Sugar	1102	1102	1100	1114	1127	1142	1158	1177	1197	1218	1241	1265	1290
Net Imports	903	900	890	973	1018	1040	1082	1114	1153	1190	1217	1242	1268
Exports	100	150	160	#N/A									
Imports	1003	1050	1050	#N/A									
Consumption	2441	2523	2540	2633	2697	2738	2801	2853	2915	2980	3036	3091	3147
Carry-out Stocks	356	360	360	361	363	364	366	369	372	375	378	382	385

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

			· .										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	33.95	34.47	34.13	34.78	35.03	35.01	35.25	35.34	35.57	35.83	35.99	36.14	36.30
Stocks/Consumption	14.58	14.27	14.17	13.71	13.44	13.30	13.08	12.93	12.75	12.58	12.46	12.34	12.23

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
A-Quota	#N/A												
B-Quota	#N/A												
A plus B Quota	13669	13669	13669	13669	13669	13669	13669	13669	13669	13669	13669	13669	13669
Raw Sugar Equivalent	14626	14626	14626	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)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	2400	2065	2040	2037	2014	2010	2013	2014	2017	2018	2019	2020	2022
Yield	57.02	56.00	56.10	56.65	56.95	57.15	57.32	57.48	57.64	57.79	57.94	58.10	58.25
Production	136839	115640	114444	115409	114681	114846	115371	115782	116254	116629	116970	117362	117774

## European Union - Sugar Extraction Rates (percent)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	15.04	15.04	15.04	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)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	5339	5088	4704	3840	3822	3834	3843	3854	3861	3869	3875	3876	3886
Production	21373	17450	17490	17648	17538	17563	17642	17704	17775	17831	17882	17941	18003
Net Exports	5585	-1551	-1551	-704	-981	-1092	-1153	-1190	-1222	-1229	-1205	-1274	-1333
Exports	8325	1369	1369	#N/A									
Imports	2740	2920	2920	#N/A									
Consumption	16800	18000	18400	18369	18508	18646	18784	18886	18989	19055	19085	19206	19327
Carry-out Stocks	4173	4704	3840	3822	3834	3843	3854	3861	3869	3875	3876	3886	3895

European Union - Per Capita Sugar Consumption	(kilograms) and Stocks to Use Ratio (percent)
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	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	46.92	50.18	51.19	51.00	51.33	51.67	52.00	52.23	52.46	52.59	52.62	52.95	53.29
Stocks/Consumption	24.84	26.13	20.87	20.81	20.71	20.61	20.52	20.44	20.38	20.33	20.31	20.23	20.15

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	5165	4775	11515	17295	17227	17246	17259	17298	17327	17371	17418	17459	17501
Production	21140	30640	31780	28739	27613	27120	26953	27068	27326	27659	28035	28435	28846
Net Exports	1460	1800	3000	5428	3826	2972	2404	2148	2004	1966	1977	1998	2025
Exports	1510	1800	3000	#N/A									
Imports	50	0	0	#N/A									
Consumption	19785	21500	23000	23380	23767	24136	24511	24891	25278	25645	26017	26395	26779
Carry-out Stocks	4175	11515	17295	17227	17246	17259	17298	17327	17371	17418	17459	17501	17544

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	17.04	18.21	19.17	19.18	19.19	19.20	19.21	19.22	19.23	19.24	19.25	19.26	19.27
Stocks/Consumption	21.10	53.56	75.20	73.68	72.57	71.51	70.57	69.61	68.72	67.92	67.11	66.30	65.51

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

				/ ,	,		- / /			/			
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	380	376	380	381	382	384	387	389	393	396	399	402	405
Yield	69.00	63.00	64.00	64.22	65.32	66.42	67.52	68.62	69.72	70.82	71.92	73.02	74.12
Production	26220	23688	24320	24452	24944	25483	26100	26725	27381	28030	28674	29332	30002

#### Indonesia - Sugar Extraction Rate

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarcane	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00

	and Utili	zation (10	000 metric	c tons, rav	v value)								
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	1120	1170	1390	1410	1431	1430	1428	1426	1424	1423	1423	1421	1420
Production	2100	1900	1950	1956	1996	2039	2088	2138	2191	2242	2294	2347	2400
Net Imports	1800	2420	2370	2426	2418	2421	2422	2421	2415	2409	2404	2394	2383
Exports	0	0	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1800	2420	2370	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	3850	4100	4300	4362	4414	4462	4511	4561	4606	4653	4699	4741	4784
Carry-out Stocks	1170	1390	1410	1431	1430	1428	1426	1424	1423	1423	1421	1420	1419
Indonesia - Per Capita Su	gar Cons	sumption 2006	(kilogram	s) and St 2008	ocks to U	se Ratio	(percent)	2012	2013	2014	2015	2016	2017
Per Capita Consumption	17.03	17.90	18.55	18.60	18.60	18.59	18.59	18.59	18.59	18.59	18.59	18.59	18.59
Stocks/Consumption	30.39	33.90	32.79	32.80	32.40	31.99	31.62	31.23	30.90	30.58	30.24	29.95	29.66
Japan - Area Harvested (1	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	87	83	82	81	80	79	78	77	76	75	73	72	70
Sugarcane	19	40	4.0	4.0									70
_		19	19	18	19	18	19	19	19	19	19	19	19
Total Area	106	102	19 101	18 100	19 99	18 98	19 97	19 96	19 95	19 94	19 92	19 91	
Total Area  Japan - Yields (metric tons	106 s/hectare	102	101	100	99	98	97	96	95	94	92	91	19 89
Japan - Yields (metric tons	106 s/hectare 2005	102	2007	100	2009	2010	97 2011	96 2012	95 2013	2014	92 2015	91 2016	19 89 2017
Japan - Yields (metric tons	106 s/hectare 2005 54.00	102 e) 2006 53.00	2007 54.10	100 2008 54.78	99 2009 55.30	98 2010 55.74	97 2011 56.14	96 2012 56.53	95 2013 56.91	94 2014 57.29	92 2015 57.67	91 2016 58.04	19 89 2017 58.42
Japan - Yields (metric tons	106 s/hectare 2005	102	2007	100	2009	2010	97 2011	96 2012	95 2013	2014	92 2015	91 2016	19 89 2017
Japan - Yields (metric tons	106 s/hectare 2005 54.00 60.31	102 2006 53.00 60.30	2007 54.10 60.40	2008 54.78 60.44	2009 55.30 60.48	2010 55.74 60.53	97 2011 56.14 60.57	96 2012 56.53 60.61	95 2013 56.91 60.66	94 2014 57.29 60.70	92 2015 57.67 60.75	91 2016 58.04 60.79	2017 58.42 60.83
Japan - Yields (metric tons  Sugar Beets Sugarcane	106 s/hectare 2005 54.00 60.31	102 2006 53.00 60.30	2007 54.10	100 2008 54.78	99 2009 55.30	98 2010 55.74	97 2011 56.14	96 2012 56.53	95 2013 56.91	94 2014 57.29	92 2015 57.67	91 2016 58.04	19 89 2017 58.42

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugar Beets	18.94	18.94	18.94	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	12.13	12.13	12.13
Japan - Sugar Supply and	d Utilizati	on (1000	metric tor	ns, raw va	alue)								
1 0 117	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	372	372	422	423	425	427	427	428	428	428	428	429	429
Production	880	880	940	978	981	973	971	966	959	951	941	930	918
Beet Sugar	750	750	810	842	841	837	832	826	818	809	800	791	779
Cane Sugar	130	130	130	136	140	135	138	140	141	141	141	140	138
Net Imports	1390	1395	1400	1369	1366	1369	1370	1372	1372	1372	1371	1370	1373
Exports	10	10	10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1400	1405	1410	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2300	2350	2350	2344	2344	2341	2341	2338	2331	2322	2311	2300	2290
Carry-out Stocks	372	422	423	425	427	427	428	428	428	428	429	429	430
Japan - Per Capita Sugar	Consum	nption (kild	ograms) a	and Stock	s to Use I	Ratio (per	cent)						
1 0	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	18.09	18.48	18.48	18.43	18.45	18.45	18.46	18.47	18.46	18.44	18.41	18.38	18.35
Stocks/Consumption	16.17	17.96	17.99	18.14	18.21	18.26	18.28	18.29	18.36	18.45	18.56	18.66	18.76
	J 1 14:1:4:	on (1000			(میرا								
Voron Sugar Supply on			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Korea - Sugar Supply and		2006	2001		157	160	159	158	156	156	156	156	156
0 117	2005	2006 150	150	155		100			1321	1333	1341	1346	1353
Carry-in Stocks	2005 150	150	150 1340	155 1238		1276	1294	1307		1000	10-1	1070	1000
Carry-in Stocks Net Imports	2005 150 1331	150 1340	1340	1238	1261	1276 #N/A	1294 #N/A	1307 #N/A	_	#N/A	#N/A	#N/A	#N/Δ
Carry-in Stocks Net Imports Exports	2005 150 1331 338	150 1340 340	1340 340	1238 #N/A	1261 #N/A	#N/A	#N/A	#N/A	#N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A	#N/A #N/A
Korea - Sugar Supply and Carry-in Stocks Net Imports Exports Imports Consumption	2005 150 1331	150 1340	1340	1238	1261	_			_	#N/A #N/A 1332	#N/A #N/A 1341	#N/A #N/A 1346	#N/A #N/A 1353

Korea - Per Capita Sugar	Korea - Per Capita Sugar Consumption (kilograms) and Stocks to Use Ratio (percent)														
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017		
Per Capita Consumption	24.50	24.58	24.38	25.01	25.37	25.68	25.95	26.14	26.35	26.50	26.63	26.68	26.77		
Stocks/Consumption	12.54	12.45	12.92	12.74	12.71	12.43	12.21	11.95	11.79	11.73	11.66	11.58	11.47		

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	325	295	305	304	307	312	318	324	331	338	346	353	361
Yield	72.00	71.00	74.00	74.01	74.16	74.31	74.46	74.61	74.76	74.91	75.06	75.21	75.36
Production	23400	20945	22570	22532	22779	23171	23659	24195	24766	25353	25950	26556	27169
South Africa - Sugar Extra	action Ra	tes (perce	ent)										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Sugarcane	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07	11.07
South Africa - Sugar Supp	olv and U	tilization (	1000 me	tric tons. I	raw value	)							
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	860	850	400	275	279	272	266	255	265	277	291	304	318
Production	2595	2300	2500	2494	2522	2565	2619	2678	2742	2807	2873	2940	3008
Net Exports	1050	1175	1035	915	972	1024	1116	1113	1128	1142	1160	1172	1104
Exports	1230	1300	1200	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	180	125	165	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
0	1550	1570	1585	1576	1557	1547	1514	1556	1601	1651	1700	1754	1871
Consumption	1550	1370	1000										
•	850	400	275	279	272	266	255	265	277	291	304	318	351
Consumption Carry-out Stocks									277	291	304	318	
Carry-out Stocks	850	400	275	279	272	266	255	265	277	291	304	318	
Carry-out Stocks	850 Sugar Co	400 onsumptio	275 on (kilogra	279 ams) and	272 Stocks to	266 Use Rati	255 o (percent	265					351
Carry-out Stocks  South Africa - Per Capita	850 Sugar Co 2005	onsumptic 2006	275 on (kilogra 2007	279 ams) and 2008	272 Stocks to 2009	266 Use Rati 2010	255 o (percent 2011	265	2013	2014	2015	2016	351 2017
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption	850 Sugar Co 2005 35.04	2006 35.63	275 on (kilogra 2007 36.12	279 ams) and 2008 36.09	272 Stocks to 2009 35.83	266 Use Rati 2010 35.79	255 o (percent 2011 35.19	265 2012 36.35	2013 37.60	2014 38.97	2015 40.32	2016 41.81	351 2017 44.83
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption	850 Sugar Co 2005	onsumptic 2006	275 on (kilogra 2007	279 ams) and 2008	272 Stocks to 2009	266 Use Rati 2010	255 o (percent 2011	265	2013	2014	2015	2016	351 2017
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption	850 Sugar Co 2005 35.04	2006 35.63	275 on (kilogra 2007 36.12	279 ams) and 2008 36.09	272 Stocks to 2009 35.83	266 Use Rati 2010 35.79	255 o (percent 2011 35.19	265 2012 36.35	2013 37.60	2014 38.97	2015 40.32	2016 41.81	351 2017 44.83
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption	850 Sugar Co 2005 35.04 54.84	400 onsumptio 2006 35.63 25.48	275 on (kilogra 2007 36.12 17.35	279 ams) and 2008 36.09 17.69	272 Stocks to 2009 35.83 17.48	266 Use Rati 2010 35.79 17.19	255 o (percent 2011 35.19 16.86	265 2012 36.35 17.01	2013 37.60 17.31	2014 38.97 17.62	2015 40.32 17.87	2016 41.81	351 2017 44.83
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption	850 Sugar Co 2005 35.04 54.84	2006 35.63 25.48	275 on (kilogra 2007 36.12 17.35	279  ams) and 2008 36.09 17.69	272 Stocks to 2009 35.83 17.48	266  Use Rati 2010 35.79 17.19	255 o (percent 2011 35.19 16.86 tons/acre)	265 2012 36.35 17.01	2013 37.60 17.31 uction (100	2014 38.97 17.62	2015 40.32 17.87	2016 41.81 18.15	2017 44.83 18.76
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption  Former Soviet Union - Su	Sugar Co 2005 35.04 54.84 gar Beet 2005	2006 35.63 25.48 Area Har	275 on (kilogra 2007 36.12 17.35 vested (1)	279 ams) and 2008 36.09 17.69	272 Stocks to 2009 35.83 17.48 ares), Yiel 2009	266 Use Rati 2010 35.79 17.19 Id (metric 2010	255 o (percent 2011 35.19 16.86 tons/acre) 2011	265 2012 36.35 17.01 , and Prod	2013 37.60 17.31 fuction (100 2013	2014 38.97 17.62 00 metric to 2014	2015 40.32 17.87 ons) 2015	2016 41.81 18.15	2017 44.83 18.76
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption  Former Soviet Union - Su  Area Harvested	Sugar Co 2005 35.04 54.84 gar Beet 2005 1400	2006 35.63 25.48 Area Har 2006 1700	275 on (kilogra 2007 36.12 17.35 vested (19 2007 1650	279 ams) and 2008 36.09 17.69 000 hecta 2008 1650	272 Stocks to 2009 35.83 17.48 ares), Yiel 2009 1654	266 Use Rati 2010 35.79 17.19 Id (metric 2010 1661	255 o (percent 2011 35.19 16.86 tons/acre) 2011 1674	265  2012 36.35 17.01  , and Prod 2012 1689	2013 37.60 17.31 fuction (100 2013 1706	2014 38.97 17.62 00 metric to 2014 1723	2015 40.32 17.87 ons) 2015 1739	2016 41.81 18.15 2016 1756	2017 44.83 18.76 2017 1773
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption  Former Soviet Union - Su  Area Harvested  Yield	Sugar Co 2005 35.04 54.84 gar Beet 2005 1400 15.20	2006 35.63 25.48 Area Har 2006 1700 16.00	275 on (kilogra 2007 36.12 17.35 vested (10 2007 1650 15.70	279 ams) and 2008 36.09 17.69 000 hecta 2008 1650 15.77	272  Stocks to 2009 35.83 17.48  ares), Yiel 2009 1654 15.85	266 Use Rati 2010 35.79 17.19 Id (metric 2010 1661 15.93	255  o (percent 2011 35.19 16.86  tons/acre) 2011 1674 16.01	265  2012  36.35  17.01  , and Prod  2012  1689  16.10	2013 37.60 17.31 Juction (100 2013 1706 16.18	2014 38.97 17.62 00 metric to 2014 1723 16.26	2015 40.32 17.87 ens) 2015 1739 16.34	2016 41.81 18.15 2016 1756 16.43	2017 44.83 18.76 2017 1773 16.51
•	Sugar Co 2005 35.04 54.84 gar Beet 2005 1400	2006 35.63 25.48 Area Har 2006 1700	275 on (kilogra 2007 36.12 17.35  vested (19 2007 1650	279 ams) and 2008 36.09 17.69 000 hecta 2008 1650	272 Stocks to 2009 35.83 17.48 ares), Yiel 2009 1654	266 Use Rati 2010 35.79 17.19 Id (metric 2010 1661	255 o (percent 2011 35.19 16.86 tons/acre) 2011 1674	265  2012 36.35 17.01  , and Prod 2012 1689	2013 37.60 17.31 fuction (100 2013 1706	2014 38.97 17.62 00 metric to 2014 1723	2015 40.32 17.87 ons) 2015 1739	2016 41.81 18.15 2016 1756	2017 44.83 18.76 2017 1773 16.51
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption  Former Soviet Union - Su  Area Harvested  Yield  Production	Sugar Co 2005 35.04 54.84 gar Beet 2005 1400 15.20 21280	400  onsumptio 2006 35.63 25.48  Area Har 2006 1700 16.00 27200	275 on (kilogra 2007 36.12 17.35  vested (1) 2007 1650 15.70 25905	279  ams) and 2008 36.09 17.69  000 hecta 2008 1650 15.77 26032	272  Stocks to 2009 35.83 17.48  ares), Yiel 2009 1654 15.85	266 Use Rati 2010 35.79 17.19 Id (metric 2010 1661 15.93	255  o (percent 2011 35.19 16.86  tons/acre) 2011 1674 16.01	265  2012  36.35  17.01  , and Prod  2012  1689  16.10	2013 37.60 17.31 Juction (100 2013 1706 16.18	2014 38.97 17.62 00 metric to 2014 1723 16.26	2015 40.32 17.87 ens) 2015 1739 16.34	2016 41.81 18.15 2016 1756 16.43	2017 44.83 18.76 2017 1773
Carry-out Stocks  South Africa - Per Capita  Per Capita Consumption  Stocks/Consumption  Former Soviet Union - Su  Area Harvested  Yield	Sugar Co 2005 35.04 54.84 gar Beet 2005 1400 15.20 21280	400  onsumptio 2006 35.63 25.48  Area Har 2006 1700 16.00 27200	275 on (kilogra 2007 36.12 17.35  vested (1) 2007 1650 15.70 25905	279  ams) and 2008 36.09 17.69  000 hecta 2008 1650 15.77 26032	272  Stocks to 2009 35.83 17.48  ares), Yiel 2009 1654 15.85	266 Use Rati 2010 35.79 17.19 Id (metric 2010 1661 15.93	255  o (percent 2011 35.19 16.86  tons/acre) 2011 1674 16.01	265  2012  36.35  17.01  , and Prod  2012  1689  16.10	2013 37.60 17.31 Juction (100 2013 1706 16.18	2014 38.97 17.62 00 metric to 2014 1723 16.26	2015 40.32 17.87 ens) 2015 1739 16.34	2016 41.81 18.15 2016 1756 16.43	2017 44.83 18.76 2017 1773 16.51

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	580	470	440	400	420	432	422	414	401	393	390	384	375
Production	2500	3150	3000	3009	3031	3059	3099	3142	3191	3238	3285	3333	3384
Net Imports	2790	2770	2950	3145	3140	3088	3069	3027	3008	2989	2955	2918	2881
Exports	110	180	200	#N/A									
Imports	2900	2950	3150	#N/A									
Consumption	5400	5950	5990	6134	6159	6156	6176	6183	6206	6230	6246	6260	6275
Carry-out Stocks	470	440	400	420	432	422	414	401	393	390	384	375	365

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	18.32	20.21	20.37	20.86	20.94	20.93	21.00	21.02	21.10	21.18	21.24	21.29	21.34
Stocks/Consumption	8.70	7.39	6.68	6.84	7.01	6.85	6.71	6.48	6.33	6.26	6.15	6.00	5.82

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

		•			•			,					
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Area Harvested	760	1060	1100	1099	1099	1099	1100	1101	1102	1103	1105	1106	1108
Yield	58.00	58.00	59.50	60.27	60.91	61.50	62.08	62.66	63.24	63.81	64.39	64.96	65.54
Production	44080	61480	65450	66252	66919	67607	68290	69003	69711	70414	71129	71853	72585

#### Thailand - Sugar Extraction Rates (percent)

		(1												_
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Sugarcane	11.00	11.00	11.00	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)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Carry-in Stocks	1217	1760	1280	980	973	976	982	990	1000	1010	1020	1030	1042
Production	4835	6720	7200	7288	7361	7437	7512	7590	7668	7746	7824	7904	7984
Net Exports	2242	5100	5300	5066	5098	5142	5186	5235	5285	5335	5385	5432	5478
Exports	2242	5100	5300	#N/A									
Imports	0	0	0	#N/A									
Consumption	2050	2100	2200	2229	2260	2289	2318	2347	2374	2400	2429	2461	2494
Carry-out Stocks	1760	1280	980	973	976	982	990	1000	1010	1020	1030	1042	1053

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Per Capita Consumption	30.85	31.38	32.65	32.85	33.11	33.33	33.55	33.76	33.98	34.19	34.42	34.71	35.00
Stocks/Consumption	85.85	60.95	44.55	43.66	43.17	42.89	42.72	42.60	42.53	42.49	42.42	42.33	42.24

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Net Exports	-13118	-11617	-13391	-15613	-15713	-15354	-15003	-14738	-14564	-14603	-14531	-14330	-14108

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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Caribbean	11.35	15.50	11.60	11.65	11.80	12.75	13.05	13.70	13.90	14.05	14.45	14.90	15.35