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2009 Outlook of the U.S. and World Sugar Markets, 2008-2018

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Abstract

This report evaluates the U.S. and world sugar markets for 2008-2018 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 stable over the next ten years in spite of the 2007-08 surge in world oil prices. That increase in price caused an increase in the conversion of sugar into ethanol in Brazil, while other exporting countries increased their production in response to those higher prices. Sugar prices returned to normal levels in 2008. World demand for sugar is expected to grow at a similar rate to world supply, resulting in Caribbean sugar prices remaining near the 13.0 -14.0 cents/lb range throughout the forecast period. The U.S. wholesale price of sugar is projected to decrease slightly from 28.60 cents/lb in 2008 to 28.40 cents/lb in 2018, if Brazil continues to convert sugar into ethanol. It is projected that Mexico will be able to export 119 thousand metric tons of sugar to the United States by 2018. 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 14.9% from 26.8 million metric tons to 31.0 million metric tons between 2008 and 2018. Brazil's exports are projected to increase from 19.8 million metric tons in 2008 to 21.0 million metric tons in 2018 even though Brazil uses a substantial amount of sugar cane for ethanol production. World sugar prices also are projected to increase from 13.84 cents/lb in 2008 to 13.95 cents/lb in 2018. U.S. wholesale sugar price is projected to decrease from 28.60 cents/lb in 2008 to 28.40 cents/lb in 2018 if there is no significant change in domestic consumption of sugar.

U.S. sugar imports are predicted to decrease by 12.1% over the 2008-2018 period compared to the recent average import. However, imports are expected to return to levels that were experienced between 2000 and 2004. U.S. sugar production is projected to increase 10.6% between 2008 and 2018, however continued high commodity prices may limit sugar production growth from sugar beets. U.S. sugar consumption is projected to increase 19.2% and ending stocks are predicted to increase 17.9%. 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 2008 to 2018. Canada's imports are expected to increase by 22.2%. Consumption is predicted to increase 17.7%, and ending stocks are predicted to decrease by 4.4%.

Mexico's production is expected to increase by 14.0%, and exports are expected to increase to 0.119 million metric tons by 2018 due to increases in exports to the United States under the North American Free Trade Agreement (NAFTA).

The European Union (EU) is expected to remain an importer due to the EU-25 sugar policy reform. Their production is predicted to increase by 3.5% while consumption will increase by 2.5%.

Production in India is predicted to increase by 20.5%, while consumption is predicted to increase 23.4% for the 2008-2018 period. India could import about 1.0 million metric tons of sugar by 2018.

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, Egypt, and Indonesia are predicted to increase their imports for the 2008-2018 period.

2009 Outlook of the U.S. and World Sugar Markets, 2008-2018

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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 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. 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 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 2008 was \$0.138/lb in 2008.

This report evaluates the U.S. and world sugar industry for 2008-2018 using the Global Sugar Policy Simulation Model developed by Benirschka et al. (1996). This model was run utilizing the 2008 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 2004-2008 period, annual global sugar production was approximately 166 million metric tons with about 30% 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, 2004 to 2008 Average

Country/ Region	Beet/ Cane	Consumption	Production	Net Exports	Ending Stocks	Per Capita Consumption
-----1,000 metric tons, raw value-----						Kg
Algeria	B	1,235	10	(764)	433	34
Australia	C	1,190	5,203	3,917	396	60
Brazil	C	10,766	28,995	14,496	262	56
Canada	B	1,435	116	(1,273)	98	43
China	B/C	10,482	11,705	(958)	1,896	7
Cuba	C	706	1,550	1,016	226	61
European Union	B	18,512	19,064	215	4,598	48
Egypt	B/C	2,506	1,546	(465)	302	34
Former Soviet Union	B/C	10,807	5,384	(4,254)	1,631	37
India	C	21,962	21,972	(556)	8,441	17
Indonesia	C	3,880	1,946	(1,540)	1,188	16
Japan	B/C	2,251	901	(755)	375	18
Korea	-	1,298	0	(1,309)	171	27
Mexico	C	5,610	5,714	99	1,555	50
South Africa	C	1,558	2,429	823	651	36
Thailand	C	2,086	6,492	1,902	1,780	30
United States	B/C	9,091	7,352	(2,040)	1,523	62
Rest of World	B/C	51,749	46,195	(8,553)	17,134	19
World	B/C	157,124	166,574	49,156	42,660	21

Per capita sugar consumption was highest in the United States followed by Cuba, and Australia. Per capita sugar consumption in the United States was 62 kg, which was above world average per capita consumption (21 kg). Per capita sugar consumption was lowest in China at 7 kg per capita, but that may increase substantially as per capita income increases. Annual global sugar consumption for the 2004-2008 period was 157 million metric tons.

The major sugar exporting countries were Brazil, Australia, Thailand, and Cuba. These countries accounted for 43% of global exports from 2004 to 2008. 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 26% of all sugar

imports from 2004 to 2008. Under the Lome Convention, the EU was required to import sugar under preferential terms from certain African, Caribbean, and Pacific countries.

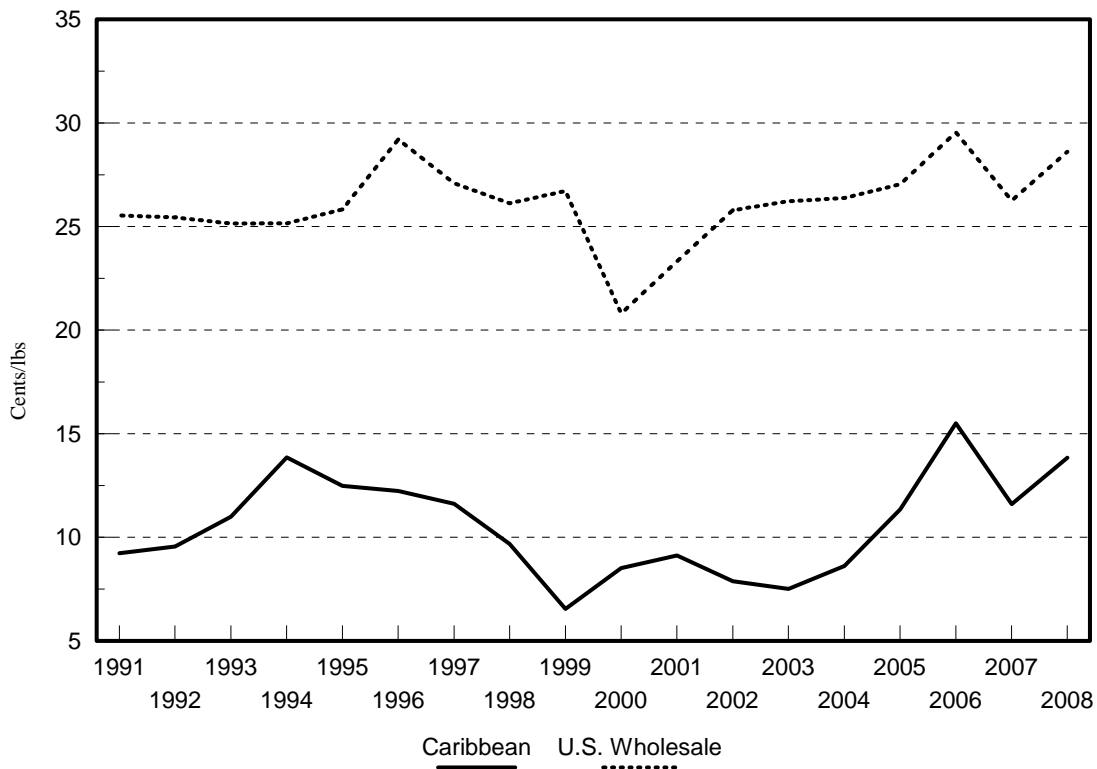


Figure 1. U.S. and World Sugar Prices

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/lb. World market prices ranged between \$0.06/lb. and \$0.18/lb (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 8 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, falling to \$0.26/lb in 2007, before increasing to \$0.28/lb in 2008.

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 of

ethanol from sugar cane. 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 25.8% from 1991 to 2008, while cane sugar production increased 19.1% (Figure 2). U.S. total sugar production increased about 23.9% from 6.2 million metric tons in 1991 to 7.6 million metric tons in 2008 (Figure 3).

U.S. consumption of sugar increased by 15.9% from about 8.0 million metric tons in 1991 to 9.0 million metric tons in 2008 (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 1991 to 2008 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.

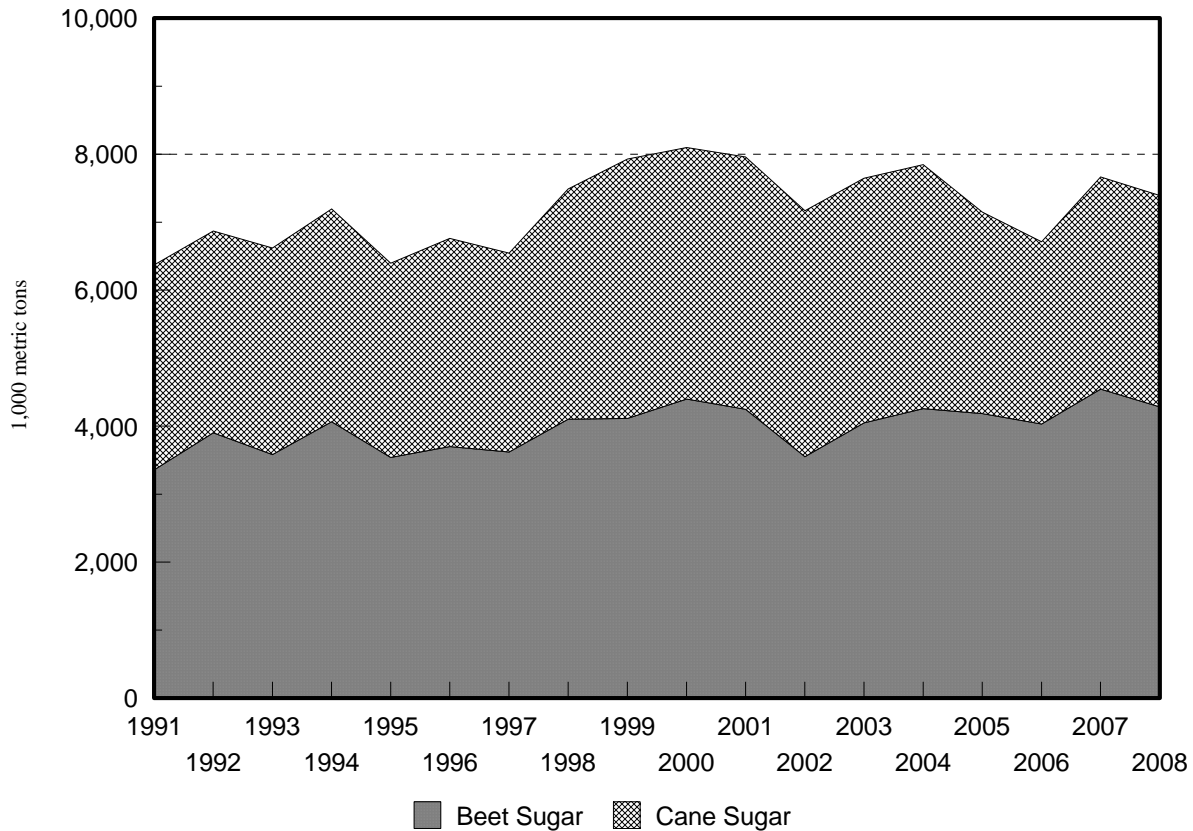


Figure 2. U.S. Beet and Cane Sugar Production

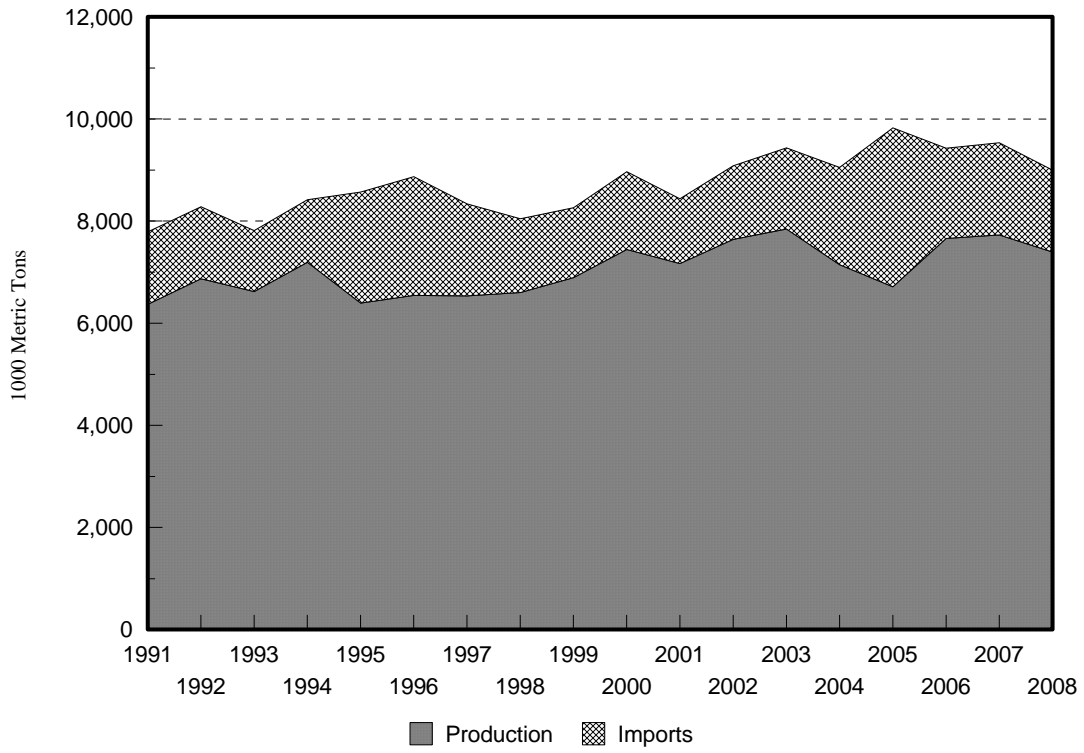


Figure 3. U.S. Sugar Production and Imports

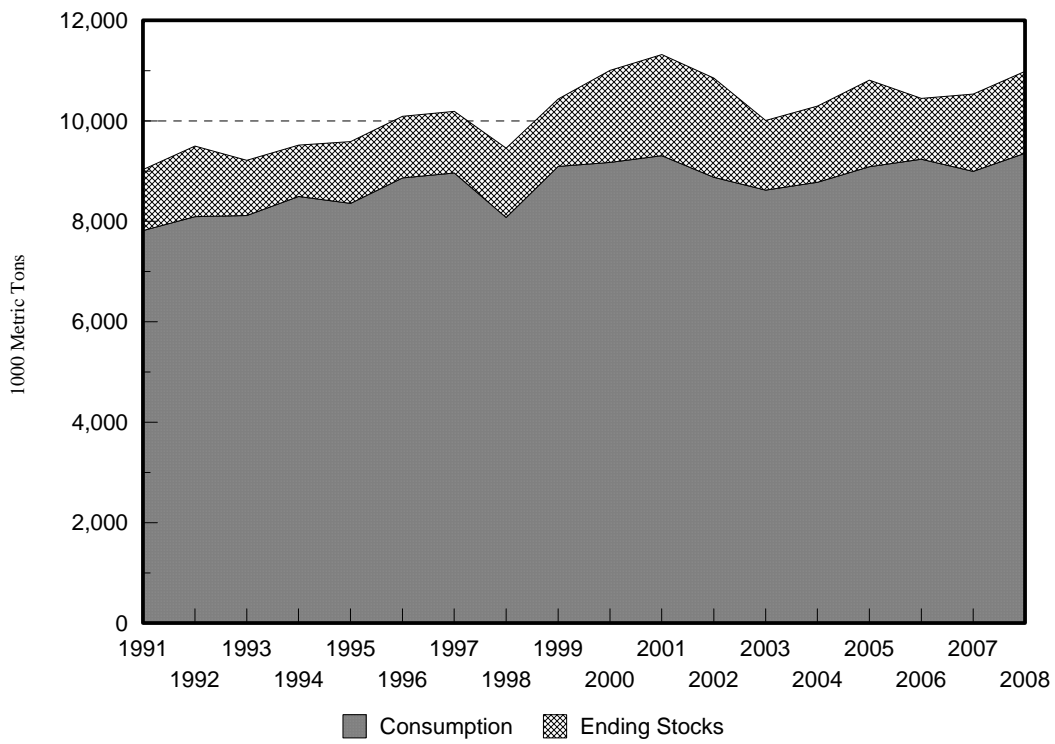


Figure 4. U.S. Sugar Consumption and Ending Stocks

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; the Farm Security and Rural Investment (FSRI) Act of 2002; and the Food, Conservation, and Energy Act of 2008.

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 was set at 18 cents/lb for raw cane sugar and 22.9 cents/lb for refined beet sugar. However, loan rates are increased under the 2008 Farm Bill to 18.75 cents/lb for cane sugar and 24.09 cents/lb for beet sugar. Loans under the 2008 Farm Bill 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/lb) is imposed on the amount of sugar imported over the import quota. The first-tier duty ranges from zero to 0.625 cents/lb.

The second tier-duty for raw cane sugar was reduced from 17.62 cents/lb in 1995 to 15.82 cents/lb in 2000 under the URA. The duty for refined sugar was reduced from 18.6 cents/lb in 1995 to 16.21 cents/lb 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 1981 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/lb in 1995 to zero in 2008. Duties beyond the import quota for most countries will remain at 15.82/lb for raw cane sugar and 16.21 cents/lb 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 in 2005 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 plant 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 2008, the EU produced 17.4 million metric tons of sugar. If the EU limits sugar production to the stated level, the EU will become an importer.

South Africa has both internal price supports and export subsidies. South Africa reduced its subsidized exports by 200 thousand metric tons to 702 thousand metric tons although net exports for 2008 were 900 thousand metric tons. Mexico also has subsidized exports and is subsidizing raw sugar storage.

Brazilian Production and Exports

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 metric tons in 1990 to 19.8 million metric tons in 2008. 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. However, since the world oil price is highly volatile, this relationship may not hold in the future.

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 14.9%, from 26.8 to 31.0 million metric tons over the 2008-2018 period. Exports of sugar in most countries will increase for 2008-2018. Exports will increase 30.7% for Brazil, and 11.4% for Australia.

World sugar price, referred to as the Caribbean price of sugar, is projected to increase less than 1% from 13.84 cents/lb in 2008 to 13.95 cents/lb in 2018 (Figure 5) because slow world income growth will limit growth in oil consumption which will limit growth in ethanol production from sugar cane.

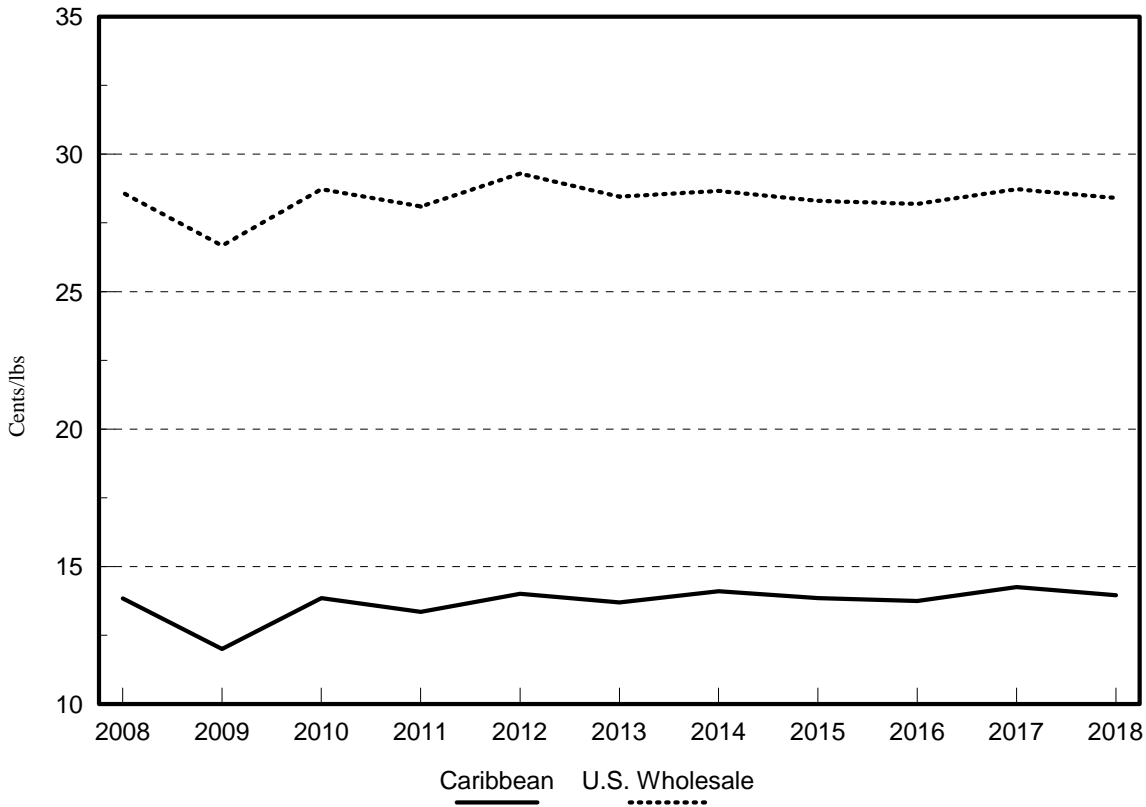


Figure 5. Estimated U.S. and World Sugar Prices

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 8.0 million metric tons in 2018. The increase in sugar production is due mainly to an increase in U.S. consumption for the time period. U.S. sugar consumption is predicted to increase 19.0% from 9.2 million metric tons (the 2006-2008 average) to 11.0 million metric tons in 2018. Ending stocks are also predicted to increase 17.9% (Table 2). Imports are predicted to decrease 12% from the 2006-08 average. However, the imports depend upon Mexico's sugar production and consumption. 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, 2008-2018 Average

	Average (2006-2008)	2008	2018	% Change (2006-08) to 2018
-----1,000 metric tons-----				
Production	7,256	7,394	8,022	10.56
Beet	4,286	4,283	4,603	7.40
Cane	2,970	3,111	3,420	15.14
Net Imports	2,970	1,607	1,516	-12.21
Per capita Consumption	62	63	68	8.51
Consumption	9,195	9,353	10,956	19.15
Carry-over Stocks	1,460	1,632	1,721	17.85

Exporters

Figure 6 shows the projected sugar exports for the largest exporting countries. Brazil is the largest sugar exporter followed by Thailand and Australia.

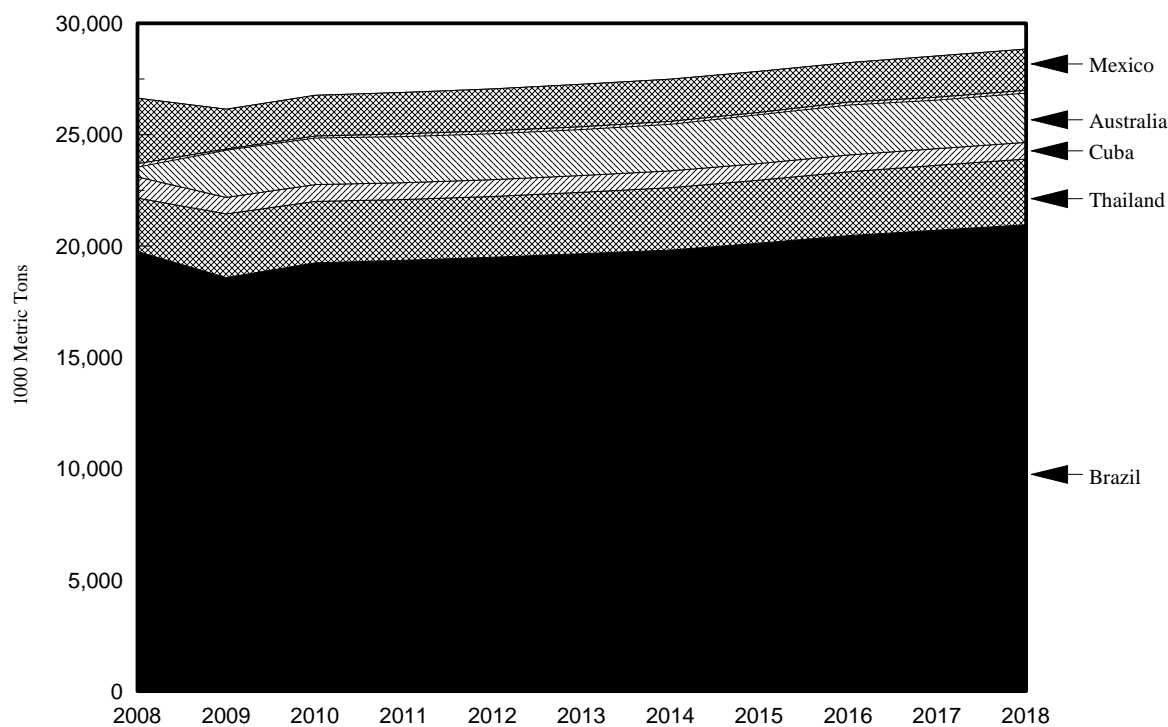


Figure 6. World Sugar Export by Country

Brazil’s production is predicted to increase by 14.0% from 30.1 million metric tons in 2006-2008 to 34.3 million metric tons in 2018 (Table 3). Brazil’s exports are predicted to increase from 16.0 million metric tons in 2006-2008 to 21.0 million metric tons in 2018.

Its domestic consumption is predicted to increase by 22.4% from 10.9 million metric tons in 2006-2008 to 13.3 million metric tons in 2018. Much of the increase in consumption is due to ethanol production.

Thailand's exports are predicted to increase by 58.5% from the 2006-2008 average of 1.9 million metric tons for the 2006-2008 average to 2.9 million metric tons in 2018 (Table 3). Most of the increase is due to small exports in 2006. Consumption increases from 2.1 million metric tons for the 2006-2008 average to 2.5 million metric tons in 2018. Sugar production in the country also is predicted to increase by 13.1% from 7.5 million metric tons to 8.5 million metric tons in 2018.

Australia's exports are predicted to increase by 11.4% from 3.8 million metric tons for the 2006-2008 average to 4.2 million metric tons in 2018 (Table 3), due mainly to increased sugar production, which is predicted to increase by 9.1% from 5.1 million metric tons to 5.6 million metric tons in 2018. Sugar consumption is expected to increase by 17.4% from 1.2 million metric tons to 1.4 million metric tons in 2018.

Cuba's exports are predicted to decrease by 4.8% from the 2006-2008 level to 2018 (Table 3). It is predicted that Cuba will increase its sugar production by 18.7%, while consumption is predicted to increase by 13.2%. 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 14.0% from 5.7 million metric tons in 2006-2008 to 6.5 million metric tons in 2018. Mexico is expected to export 119 thousand metric tons by 2018, mainly to the United States under NAFTA. Sugar consumption is predicted to increase by 13.0% from 5.6 million metric tons in 2006-2008 to 6.4 million metric tons in 2018 under the assumption that Mexico does not convert to HFCS in their soft drink industry. Ending stocks are predicted to increase by 3.1%. 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 8.1% from 2.4 million metric tons in 2006-2008 to 2.6 million metric tons in 2018. South Africa's exports are predicted to increase 9.3% by 2018. Sugar consumption is predicted to increase by 2.7% and ending stocks are predicted to decrease by 52.3%.

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 18.5% and 38.4%, respectively, for the 2008-2018 period.

Canada's production is predicted to increase above the 2006-2008 average of 120 thousand metric tons to 129 thousand tons by the year 2018, and consumption is predicted to increase from 1.5 million metric tons to 1.7 million metric tons in 2018 (Table 4). As a result, Canada's imports are predicted to increase 22.2% from 1.3 million metric tons to 1.6 million metric tons in 2018.

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

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

	Average (2006-2008)	2008	2018	% change (2006-08) to 2018
-----1,000 metric tons-----				
Brazil				
Production	30,133	32,100	34,346	14.0
Net Exports	16,030	19,750	20,957	30.7
Consumption	10,943	11,400	13,390	22.4
Carry-over	(102)	465	455	NA
Thailand				
Production	7,480	7,900	8,458	13.1
Net Exports	1,860	2,400	2,948	58.5
Consumption	2,127	2,300	2,496	17.4
Carry-over	2,157	2,965	2,533	17.4
Australia				
Production	5,149	4,939	5,617	9.1
Net Exports	3,756	3,536	4,183	11.4
Consumption	1,217	1,250	1,428	17.4
Carry-over	364	400	428	17.5
Cuba				
Production	1,300	1,450	1,543	18.7
Net Exports	790	750	752	-4.8
Consumption	705	710	798	13.2
Carry-over	230	220	226	-1.7
Mexico				
Production	5,696	5,852	6,496	14.0
Net Exports	(176)	153	119	NA
Consumption	5,630	5,720	6,361	13.0
Carry-over	1,524	1,560	1,571	3.1
South Africa				
Production	2,423	2,360	2,620	8.1
Net Exports	920	904	1,006	9.3
Consumption	1,568	1,585	1,610	2.7
Carry-over	508	227	242	-52.3

predicted to decrease from 2.9 million metric tons in 2008 to 1.9 million metric tons in 2018 (Figure 7). Sugar production in the EU is predicted to increase 3.5% and consumption is predicted to increase from 19.4 million metric tons for the 2006-2008 average to 19.9 million tons in 2018 (Table 4). Most of the increase in consumption is due to the income increases in the additional countries now included in the EU.

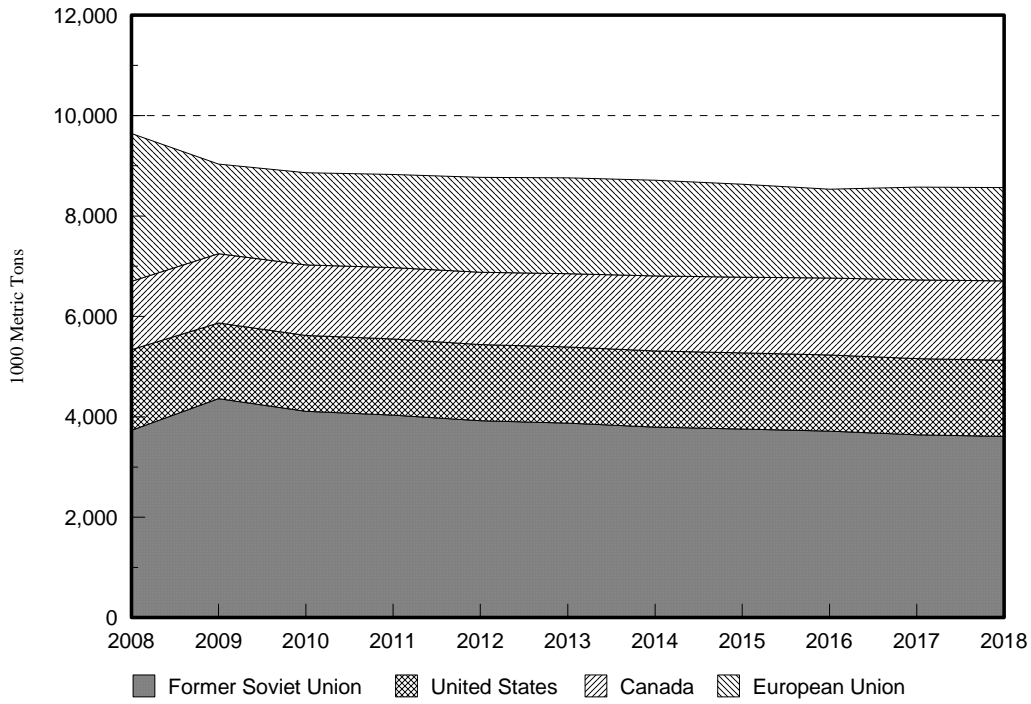


Figure 7. World Sugar Imports by Country, Major Importers

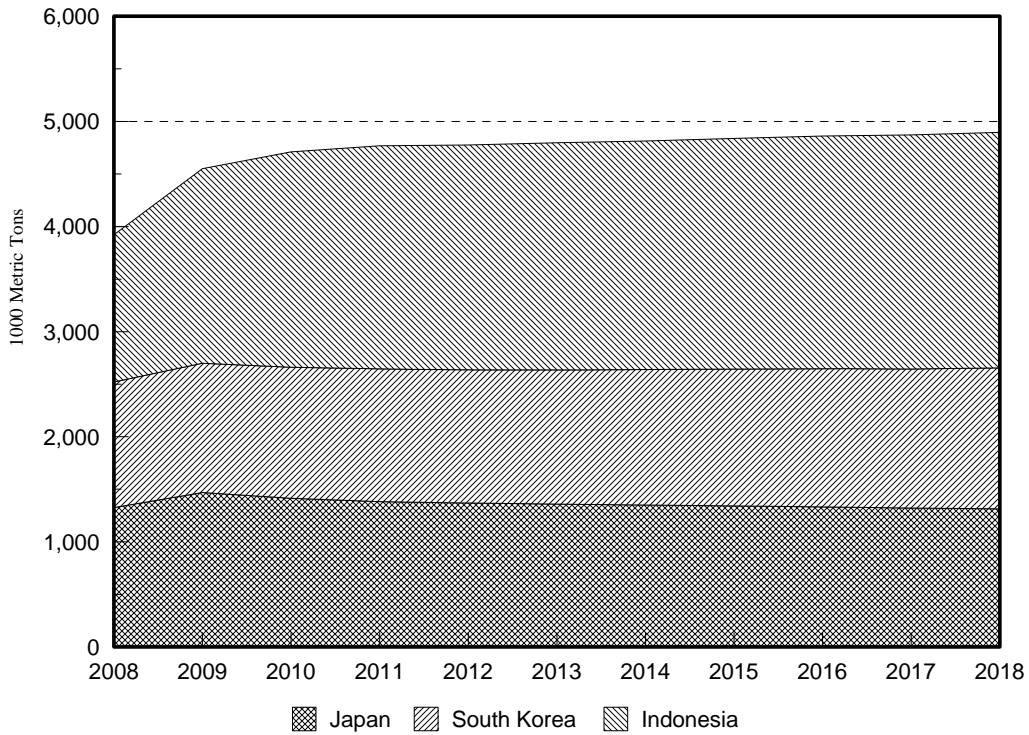


Figure 8. World Sugar Imports by Country, Asian Countries

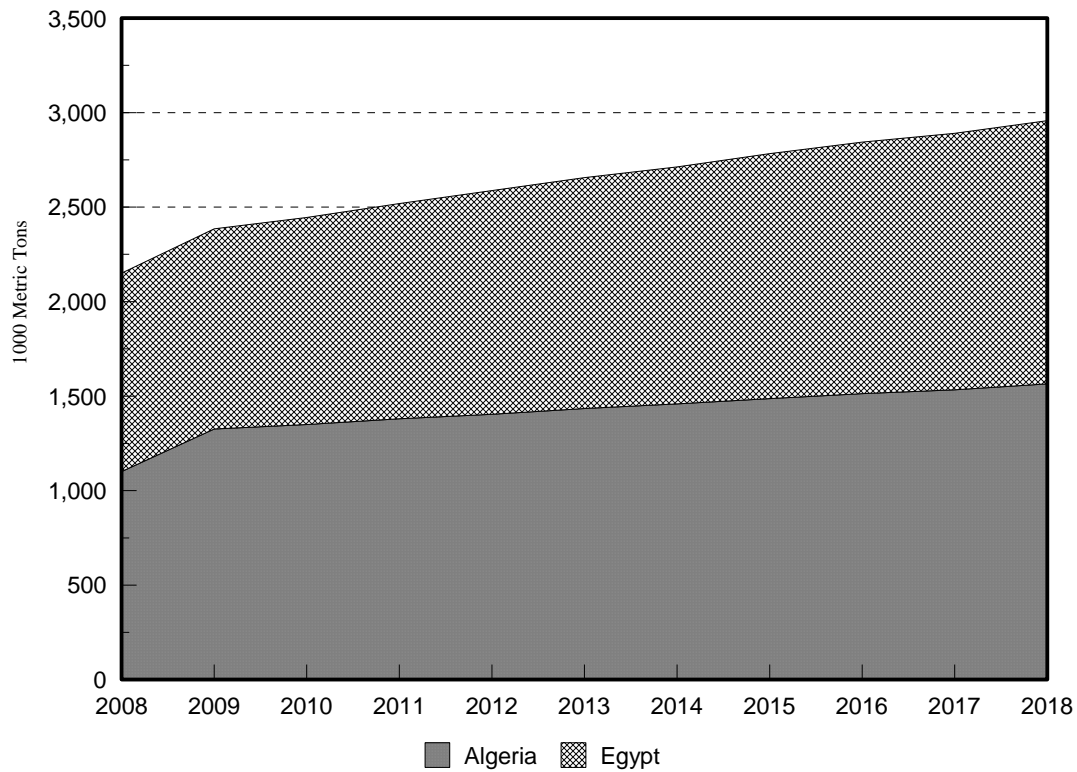


Figure 9. World Sugar Imports by Country, African Countries

The FSU's production is predicted to increase by 18.9% from the 2006-2008 average of 6.0 million metric tons to 7.1 million metric tons in 2018, and consumption is predicted to increase 2.1% from 10.5 million metric tons to 10.7 million metric tons for the same period. Imports are predicted to decrease 2.0% from the 2006-2008 average (Table 4).

China is expected to increase its imports by about 5.2% from 0.88 million metric tons in 2006-2008 to 0.92 million metric tons in 2018 (Table 4). China's production is predicted to increase by 33.0% from 12.7 million metric tons for the 2006-2008 average to 16.9 million metric tons in 2018, and consumption is predicted to increase by 34.0% from 13.3 million metric tons to 17.8 million metric tons for the period.

India's production is predicted to increase by 20.5% from 26.8 million metric tons in 2006-2008 to 32.3 million metric tons in 2018. India's is expected to export sugar in the near future.

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

	Average (2006-08)	2008	2018	% change (2006-08) to 2018
-----1,000 metric tons-----				
Algeria				
Production	10	11	11	6.5
Net Imports	865	720	1,565	80.9
Consumption	1,272	1,225	1,576	23.9
Carry-over	471	487	465	-1.2
Canada				
Production	120	105	129	7.2
Net Imports	1,295	1,225	1,583	22.2
Consumption	1,457	1,430	1,715	17.7
Carry-over	45	44	43	-4.4
China				
Production	12,733	9,446	16,929	33.0
Net Imports	877	957	922	5.2
Consumption	13,283	11,500	17,801	34.0
Carry-over	1,800	703	1,256	-30.2
Egypt				
Production	1,619	1,601	1,726	6.6
Net Imports	958	950	1,393	45.5
Consumption	2,550	2,441	3,116	22.2
Carry-over	285	356	275	-3.4
European Union				
Production	17,433	17,400	18,050	3.5
Net Imports	2,662	2,945	1,858	-30.2
Consumption	19,419	19,240	19,900	2.5
Carry-over	4,493	4,769	4,851	8.0
Former Soviet Union				
Production	5,973	5,280	7,100	18.9
Net Imports	3,682	3,748	3,608	-2.0
Consumption	10,486	10,104	10,702	2.1
Carry-over	1,667	1,396	1,548	-7.2
India				
Production	26,833	21,140	32,337	20.5
Net Imports	883	-50	-846	NA
Consumption	26,833	21,140	33,107	23.4
Carry-over	9,135	5,625	10,604	16.1
Indonesia				
Production	1,983	2,100	2,242	13.0
Net Imports	1,517	1,300	2,253	48.5
Consumption	4,150	3,850	4,495	8.3
Carry-over	1,217	1,170	1,228	0.9
Japan				
Production	903	880	897	-0.7
Net Imports	1,334	1,338	1,314	-1.5
Consumption	2,242	2,220	2,210	-1.4
Carry-over	371	372	375	1.0
Korea				
Production	0	0	0	NA
Net Imports	1,288	1,329	1,341	4.1
Consumption	1,282	1,331	1,336	4.2
Carry-over	185	150	213	15.1

Japan's imports are predicted to decrease by 1.5% from the 2006-2008 average to 1.3 million metric tons in 2018, due to a slight decrease in domestic consumption (Table 4).

In South Korea, consumption is predicted to increase by 4.2% for the time period. As a result, South Korea's imports are predicted to increase 4.1% 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 23.9% from 1.3 million metric tons in 2006-2008 to 1.6 million metric tons in 2018. This increase in consumption results in imports increasing from 0.9 million metric tons for the 2006-2008 average to 1.6 million metric tons in 2018.

Egypt's imports are predicted to increase by 45.5% from 1.0 million metric tons in 2006-2008 to 1.4 million metric tons in 2018, due mainly to increased consumption. Consumption is predicted to increase 22.2% from 2.6 million metric tons to 3.1 million metric tons in 2018.

Indonesia's imports are predicted to increase by 48.5% from 1.5 million metric tons in 2006-2008 to 2.3 million metric tons in 2018. Consumption is predicted to increase from 4.2 million metric tons for the 2006-2008 average to 4.5 million metric tons in 2018.

CONCLUDING REMARKS

This report provides an overview of the U.S. and world sugar markets for 2008-2018 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 14.9% from 26.8 million metric tons in 2008 to 31.0 million metric tons in 2018. The price of Caribbean sugar is expected to increase about 1% from 13.84 cents/lb in 2008 to 13.95 cents/lb in 2018. With lower oil prices, the conversion of sugar into ethanol will limit demand increases thereby limiting price increases.

Exports are predicted to increase for Brazil, Australia, South Africa, and Thailand, due to production increases in those countries.

Imports by most importing countries are predicted to increase from the 2006-08 average to 2018. China's imports are predicted to increase by 5.2%, while Japan's imports are predicted to decrease by 1.5%. Imports by Egypt and Algeria are predicted to increase by 45.5% and 80.9%, respectively.

U.S. sugar consumption is predicted to increase by 19.2% for the forecasting period, while production is expected to increase by 7.4% for beet sugar and by 15.1% for cane sugar. Increases in beet sugar production may be limited due to high prices for other commodities as corn, soybeans, and wheat compete for acres. However, if the prices 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

12.2% for the period but most of the decreases are due to abnormally high levels of imports between 2006 and 2008. 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 prevent conversion from sugar to HFCS of the soft drink industry. Otherwise Mexico's sugar exports to the United States could be relatively small, even though NAFTA allows unlimited exports of sugar 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/lb from a high of 15.5 cents/lb 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.

One important variable to be considered is the possible substitution of sugar for HFCS in the U.S. soft drink industry, mainly because of the narrowing gap in the prices of the two products. If the substitution is realized, domestic demand for sugar may significantly increase.

References

- Andino, Jose, Richard D. Taylor, and Won W. Koo. *The Mexican Sweeteners Market and Sugar Exports to the United States*. Agribusiness & Applied Economics Report No. 579. Center for Agricultural Policy and Trade Studies. North Dakota State University, Fargo, 2006.
- Benirschka, M., W.W. Koo, and J. Lou. *World Sugar Policy Simulation Model: Description and Computer Program Documentation*. Agricultural Economics Report No. 356. Department of Agricultural Economics, North Dakota State University, Fargo, 1996.
- Food and Agricultural Policy Research Institute, FAPRI. *2009 World Agricultural Briefing Book*, Iowa State University and University of Missouri-Columbia. February 2009.
- Henneberry, P.D., and S.L. Haley. "Implications of NAFTA Duty Reductions for the U.S. Sugar Market." *Sugar and Sweetener: Situation and Outlook Report*, U.S. Department of Agriculture, Economic Research Service, SSS-224, Washington, DC, 1998.
- Koo, Won W., Richard Taylor and Jeremy W. Mattson. "Impacts of the U.S. Central American Free Trade Agreement on the U.S. Sugar Industry." Special Report 03-3. Center for Agricultural Policy and Trade Studies. North Dakota State University, Fargo, 2003.
- McElroy, R.C., and M. Ali. "U.S. Sugarbeet and Sugar Cane Per-acre Costs of Production: Revisions of 1992 and New 1993 and 1994 Crop Estimates." *Sugar and Sweetener Situation and Outlook*, U.S. Department of Agriculture, Economic Research Service, Washington, DC, 1995.
- Normile, M., and M. Simone. *Agriculture in the Uruguay Round*. U.S. Department of Agriculture, Economic Research Service, WTO Briefing Room, <http://www.econ.ag.gov/briefing/wto/issues/uraa.htm>, 1999.
- U.S. Department of Agriculture, Economic Research Service, U.S. Agricultural Trade Update, Monthly Spreadsheet Files, <http://usda.mannlib.cornell.edu/usda/usda.html>, 2008.
- . Sugar and Sweeteners Outlook. *EU-25 Sugar and Sweetener Policy Reform*. January 31, 2006.
- . *PS&D View*. (Computer Files). Washington, DC, 2009.
- . *Sugar and Sweetener: Situation and Outlook Report*. Washington, DC, various issues.

Appendix

World Sugar Policy Simulation Model

2009 Baseline Solution

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	40.61	38.41	40.75	40.03	41.41	40.45	40.69	40.27	40.15	40.75	40.39
Sugarcane	29.12	26.84	29.25	28.51	29.93	28.94	29.19	28.76	28.63	29.25	28.88

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Caribbean Price	13.84	12.00	13.85	13.35	14.00	13.70	14.10	13.85	13.75	14.25	13.95
TRQ Status	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
Implicit Tariff	6.00	6.00	6.10	6.00	6.50	6.00	5.80	5.70	5.70	5.70	5.70
Import Price	19.84	18.00	19.95	19.35	20.50	19.70	19.90	19.55	19.45	19.95	19.65
Wholesale Price	28.60	26.67	28.72	28.09	29.29	28.45	28.66	28.30	28.19	28.72	28.40
Retail Price	46.73	44.11	46.89	46.04	47.67	46.54	46.82	46.32	46.18	46.89	46.46

United States - Area Harvested (1000 acres)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	1250	1239	1250	1245	1246	1241	1238	1236	1240	1251	1262
Sugarcane	845	843	849	850	855	858	862	866	870	878	883
Total Area	2095	2082	2099	2095	2101	2098	2100	2102	2110	2129	2146

United States - Yields (short tons/acre)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	24.80	24.92	25.05	25.14	25.27	25.35	25.53	25.73	25.93	26.14	26.35
Sugarcane	33.00	33.36	33.53	33.70	33.86	34.02	34.18	34.33	34.49	34.65	34.80

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	31000	30884	31309	31303	31483	31454	31594	31798	32150	32711	33271
Sugarcane	27885	28123	28472	28643	28959	29173	29464	29730	30019	30404	30747

United States - Sugar Extraction Rates (percent)

Variable	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25	15.25
Sugarcane	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Beet Sugar	4721	4710	4775	4774	4801	4797	4818	4849	4903	4988	5074
Cane Sugar	3429	3448	3491	3512	3550	3577	3612	3645	3680	3728	3770
All Sugar	8150	8158	8265	8285	8352	8373	8430	8494	8583	8716	8843

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

Variable	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tariff Rate Quota	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
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

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
TRQ Status	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
Implicit Tariff	6.00	6.00	6.10	6.00	6.50	6.00	5.80	5.70	5.70	5.70	5.70
Total Imports	1771	1781	1786	1791	1791	1791	1791	1791	1791	1791	1791
Quota-sugar Imports	1576	1581	1586	1591	1591	1591	1591	1591	1591	1591	1591
Other Sugar Imports	315	200	200	200	200	200	200	200	200	200	200
Total Exports	120	120	120	120	120	120	120	120	120	120	120
Net Imports	1651	1661	1666	1671	1671	1671	1671	1671	1671	1671	1671

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1698	1799	1782	1826	1801	1792	1806	1821	1841	1861	1877
Production	8150	8158	8265	8285	8352	8373	8430	8494	8583	8716	8843
Net Imports	1771	1661	1666	1671	1671	1671	1671	1671	1671	1671	1671
Consumption	10310	10483	10441	10691	10765	11038	11221	11458	11674	11837	12077
Carry-out Stocks	1799	1782	1826	1801	1792	1806	1821	1841	1861	1877	1897

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	69.33	69.88	69.00	70.05	69.93	71.10	71.66	72.57	73.32	73.74	74.62
Stocks/Consumption	17.45	17.00	17.49	16.84	16.65	16.36	16.23	16.07	15.94	15.86	15.71

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	23	23	23	23	22	22	22	22	22	22	22
Yield	48.50	48.16	48.75	49.14	49.58	50.00	50.43	50.85	51.28	51.71	52.13
Production	1116	1092	1101	1109	1108	1113	1117	1124	1130	1135	1140

Canada - Sugar Beet Exogenous Variables

Variable	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Extraction Rate (%)	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	42	49	49	50	50	50	51	51	49	46	45
Production	126	123	124	125	125	126	126	127	128	128	129
Net Imports	1360	1383	1403	1424	1443	1460	1495	1508	1531	1569	1583
Imports	1360	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Exports	15	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1490	1506	1526	1550	1569	1585	1621	1637	1661	1698	1715
Carry-out Stocks	49	49	50	50	50	51	51	49	46	45	43

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	44.21	44.33	44.55	44.88	45.07	45.18	45.86	45.97	46.28	46.97	47.09
Stocks/Consumption	3.29	3.26	3.29	3.24	3.20	3.21	3.14	2.97	2.79	2.67	2.49

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	667	667	670	672	675	677	680	682	692	700	707
Yield	74.40	74.70	74.99	75.28	75.56	75.84	76.13	76.41	76.70	76.98	77.26
Production	49588	49859	50256	50607	51003	51373	51769	52141	53107	53856	54588

Mexico - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	11.80	11.80	11.80	11.90	11.90	11.90	11.90	11.90	11.90	11.90	11.90

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1718	1560	1535	1518	1513	1513	1517	1522	1530	1542	1555
Production	5852	5883	5930	6022	6069	6113	6160	6205	6320	6409	6496
Net Imports	-153	-58	-86	-132	-126	-123	-126	-105	-129	-127	-119
Exports	178	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	25	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	5720	5850	5861	5896	5944	5987	6030	6092	6179	6268	6361
Carry-out Stocks	1560	1535	1518	1513	1513	1517	1522	1530	1542	1555	1571

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	50.07	50.63	50.16	49.90	49.76	49.58	49.41	49.40	49.60	49.81	50.06
Stocks/Consumption	27.27	26.23	25.91	25.67	25.46	25.34	25.24	25.11	24.95	24.81	24.70

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	7	7	7	7	7	7	7	7	7	7	7
Yield	20	20	20	20	20	20	21	21	21	21	21
Production	140	145	147	149	151	152	152	153	154	154	155

Algeria - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarbeet	7.41	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	445	480	471	466	464	463	463	463	464	464	465
Production	10	11	11	11	11	11	11	11	11	11	11
Net Imports	1100	1326	1350	1380	1404	1434	1458	1487	1513	1534	1565
Exports	50	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1150	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1330	1345	1365	1394	1416	1445	1469	1498	1524	1545	1576
Carry-out Stocks	480	471	466	464	463	463	463	464	464	465	465

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	36.35	36.33	36.44	36.76	36.92	37.24	37.42	37.74	37.98	38.09	38.45
Stocks/Consumption	36.09	35.04	34.17	33.32	32.70	32.04	31.53	30.94	30.45	30.07	29.51

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	429	429	432	435	435	437	437	438	439	440	441
Yield	87	91	92	93	93	94	94	94	95	95	96
Production	37109	39058	39813	40299	40568	40865	41125	41411	41674	41935	42231

Australia - Sugar Extraction Rate (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	402	400	377	383	390	395	401	405	410	416	423
Production	4939	5195	5295	5360	5395	5435	5470	5508	5543	5577	5617
Net Exports	3536	3960	4011	4052	4072	4094	4115	4138	4149	4162	4183
Exports	3540	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	4	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1250	1257	1278	1301	1318	1335	1350	1365	1387	1409	1428
Carry-out Stocks	400	377	383	390	395	401	405	410	416	423	428

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	61.29	60.92	61.20	61.55	61.67	61.79	61.80	61.82	62.14	62.45	62.67
Stocks/Consumption	32.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	-485	465	464	464	463	462	461	460	458	457	456
Production	32100	30855	31528	31789	32074	32357	32640	33124	33596	33968	34346
Net Exports	19750	18584	19245	19361	19490	19648	19818	20124	20463	20706	20957
Exports	14830	#N/A	#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	#N/A
Consumption	11400	12273	12283	12429	12585	12710	12823	13002	13134	13263	13390
Carry-out Stocks	465	464	464	463	462	461	460	458	457	456	455

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	62.28	62.46	61.78	61.80	61.88	61.82	61.71	61.93	61.94	61.95	61.95
Stocks/Consumption	4.08	3.78	3.78	3.72	3.67	3.62	3.58	3.52	3.48	3.44	3.40

China - Area Harvested (1000 hectares)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	332	338	325	348	331	347	339	348	345	350	353
Sugarcane	2190	2199	2203	2217	2223	2232	2239	2248	2256	2263	2273
Total Area	2522	2537	2528	2565	2555	2579	2578	2596	2601	2613	2626

China - Yields (metric tons/hectare)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	37.50	37.58	37.69	37.82	37.98	38.14	38.32	38.51	38.81	39.10	39.39
Sugarcane	73.00	73.09	73.21	73.36	73.51	73.68	73.86	74.04	74.23	74.43	74.62

China - Production (1000 metric tons)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	12450	12690	12237	13162	12587	13224	12995	13413	13390	13671	13905
Sugarcane	159870	160733	161310	162647	163441	164484	165396	166456	167434	168442	169589

China - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarbeets	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

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1401	3297	3014	2893	2968	2983	3041	3070	3127	3179	3206
Production	15898	15995	16002	16218	16232	16392	16453	16592	16679	16800	16929
Beet Sugar	1262	1288	1242	1336	1278	1342	1319	1361	1359	1388	1411
Cane Sugar	14636	14707	14760	14882	14955	15050	15134	15231	15320	15412	15517
Net Imports	493	-1201	-818	-581	-455	-356	-130	143	354	719	922
Exports	7	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	500	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	14850	15077	15305	15562	15761	15980	16293	16678	16982	17491	17801
Carry-out Stocks	3297	3014	2893	2968	2983	3041	3070	3127	3179	3206	3256

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	11.08	11.18	11.27	11.38	11.45	11.53	11.68	11.88	12.02	12.31	12.46
Stocks/Consumption	22.20	19.99	18.90	19.07	18.93	19.03	18.84	18.75	18.72	18.33	18.29

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	450	454	449	454	453	455	454	455	454	454	455
Yield	31	31	31	31	32	32	32	32	32	33	33
Production	14040	14166	14063	14279	14321	14459	14522	14643	14712	14792	14924

Cuba - Sugar Extraction Rate (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	240	285	290	282	276	268	261	253	247	241	232
Production	1450	1465	1454	1476	1481	1495	1502	1514	1521	1529	1543
Net Exports	950	738	749	753	756	754	756	753	749	754	752
Consumption	710	722	713	729	733	747	754	767	779	784	798
Carry-out Stocks	285	290	282	276	268	261	253	247	241	232	226

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	60.77	61.61	60.76	62.01	62.23	63.30	63.74	64.76	65.65	66.01	67.07
Stocks/Consumption	40.14	40.19	39.51	37.87	36.49	34.94	33.57	32.16	30.89	29.64	28.36

Egypt - Area Harvested (1000 hectares)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	76	77	77	77	77	77	77	78	78	78	79
Sugarcane	126	126	126	126	126	126	127	127	128	128	129
Total Area	202	203	203	203	203	203	204	205	206	207	208

Egypt - Yields (metric tons/hectare)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	51.00	51.16	51.51	51.81	52.12	52.43	52.74	53.05	53.36	53.67	53.98
Sugarcane	101.50	101.79	102.16	102.59	103.08	103.62	104.19	104.80	105.44	106.10	106.79

Egypt - Production (1000 metric tons)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	3896	3924	3961	3988	4006	4031	4078	4121	4165	4209	4254
Sugarcane	12789	12808	12846	12906	12984	13079	13190	13315	13452	13602	13763

Egypt - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75	12.75
Sugarcane	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 Utilization (1000 metric tons, raw value)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	246	252	253	254	255	257	260	263	266	269	272
Production	1603	1602	1610	1618	1627	1639	1654	1671	1688	1706	1726
Beet Sugar	498	500	505	508	511	514	520	525	531	537	542
Cane Sugar	1105	1101	1105	1110	1117	1125	1134	1145	1157	1170	1184
Net Imports	1050	1059	1095	1139	1183	1222	1254	1295	1331	1357	1393
Exports	50	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1100	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2612	2660	2704	2756	2808	2858	2906	2963	3016	3061	3116
Carry-out Stocks	252	253	254	255	257	260	263	266	269	272	275

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	34.48	34.54	34.54	34.65	34.77	34.86	34.92	35.09	35.22	35.25	35.41
Stocks/Consumption	9.65	9.49	9.38	9.26	9.17	9.09	9.03	8.96	8.91	8.89	8.84

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
A-Quota	#N/A	#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	#N/A
A plus B Quota	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

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	2030	2031	2032	2038	2036	2037	2034	2034	2031	2029	2029
Yield	55.90	56.05	56.26	56.49	56.73	56.97	57.22	57.46	57.71	57.96	58.20
Production	113477	113822	114316	115136	115514	116039	116403	116888	117233	117590	118086

European Union - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	4005	4769	4787	4795	4808	4816	4825	4830	4833	4832	4842
Production	17400	17409	17483	17607	17663	17742	17797	17870	17922	17976	18050
Net Exports	-2945	-1784	-1834	-1852	-1889	-1908	-1905	-1849	-1773	-1851	-1858
Exports	5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	2950	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	19240	19175	19310	19446	19544	19640	19697	19716	19696	19817	19900
Carry-out Stocks	4769	4787	4795	4808	4816	4825	4830	4833	4832	4842	4851

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	53.54	53.30	53.62	53.95	54.18	54.42	54.55	54.58	54.52	54.85	55.08
Stocks/Consumption	24.79	24.96	24.83	24.72	24.64	24.57	24.52	24.51	24.53	24.43	24.38

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	11300	10480	10093	10005	10070	10130	10222	10299	10384	10464	10528
Production	28580	28879	29173	29427	29777	30164	30580	31007	31443	31891	32337
Net Exports	2700	223	-243	-596	-696	-793	-814	-844	-850	-834	-846
Exports	2700	#N/A	#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	#N/A
Consumption	28580	29043	29504	29958	30411	30865	31317	31766	32214	32661	33107
Carry-out Stocks	10480	10093	10005	10070	10130	10222	10299	10384	10464	10528	10604

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	23.44	23.45	23.46	23.46	23.47	23.47	23.48	23.48	23.49	23.49	23.49
Stocks/Consumption	36.67	34.75	33.91	33.61	33.31	33.12	32.89	32.69	32.48	32.23	32.03

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	381	382	384	387	388	390	392	394	396	398	400
Yield	64.10	65.52	66.02	66.52	67.02	67.52	68.02	68.52	69.02	69.52	70.02
Production	24390	25014	25325	25722	26022	26360	26676	27015	27340	27667	28023

Indonesia - Sugar Extraction Rate

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	8.00	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1190	1290	1234	1230	1231	1230	1230	1229	1229	1229	1228
Production	1950	2001	2026	2058	2082	2109	2134	2161	2187	2213	2242
Net Imports	1850	2048	2121	2141	2159	2177	2194	2211	2226	2240	2253
Exports	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1850	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	4300	4105	4151	4197	4242	4286	4329	4372	4414	4455	4495
Carry-out Stocks	1290	1234	1230	1231	1230	1230	1229	1229	1229	1228	1228

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	18.33	17.30	17.29	17.30	17.30	17.30	17.30	17.30	17.30	17.30	17.31
Stocks/Consumption	30.00	30.06	29.63	29.33	29.00	28.70	28.40	28.12	27.84	27.57	27.32

Japan - Area Harvested (1000 hectares)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	76	77	77	77	78	78	77	77	76	75	75
Sugarcane	19	19	17	17	17	17	17	17	17	16	16
Total Area	95	95	94	95	95	95	94	94	93	92	91

Japan - Yields (metric tons/hectare)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	52.00	52.00	52.20	52.49	52.83	53.19	53.55	53.92	54.30	54.67	55.05
Sugarcane	60.60	60.47	60.53	60.57	60.61	60.66	60.70	60.75	60.79	60.83	60.88

Japan - Production (1000 metric tons)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	3952	3981	4014	4057	4096	4124	4140	4145	4141	4127	4103
Sugarcane	1151	1126	1046	1049	1049	1046	1039	1029	1017	1004	988

Japan - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	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

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	372	370	369	369	370	371	371	372	372	373	374
Production	890	891	887	896	903	908	910	910	908	903	897
Beet Sugar	750	754	760	768	776	781	784	785	784	782	777
Cane Sugar	140	137	127	127	127	127	126	125	123	122	120
Net Imports	1325	1468	1415	1382	1368	1359	1349	1342	1333	1321	1314
Exports	10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1335	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	2287	2359	2303	2276	2271	2266	2259	2251	2240	2224	2210
Carry-out Stocks	370	369	369	370	371	371	372	372	373	374	375

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	18.02	18.61	18.21	18.05	18.06	18.08	18.09	18.10	18.09	18.04	18.02
Stocks/Consumption	16.18	15.66	16.02	16.27	16.32	16.39	16.45	16.54	16.67	16.81	16.98

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	245	160	156	164	177	182	189	193	198	204	208
Net Imports	1195	1230	1246	1265	1266	1279	1286	1301	1315	1323	1341
Exports	315	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	1510	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	1270	1234	1238	1253	1261	1272	1282	1295	1308	1320	1336
Carry-out Stocks	160	156	164	177	182	189	193	198	204	208	213

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	25.77	24.97	24.98	25.22	25.33	25.51	25.67	25.89	26.12	26.33	26.61
Stocks/Consumption	12.60	12.64	13.27	14.11	14.46	14.85	15.03	15.32	15.63	15.72	15.94

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	300	300	301	303	306	309	313	316	319	323	326
Yield	71.00	71.16	71.31	71.46	71.61	71.76	71.91	72.06	72.21	72.36	72.51
Production	21300	21315	21452	21672	21921	22197	22480	22775	23069	23367	23671

South Africa - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	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 Supply and Utilization (1000 metric tons, raw value)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	446	227	231	229	231	228	228	229	232	235	237
Production	2360	2360	2375	2399	2427	2457	2489	2521	2554	2587	2620
Net Exports	904	763	775	798	837	871	901	927	958	983	1006
Exports	904	#N/A	#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	#N/A
Consumption	1585	1593	1601	1599	1592	1586	1587	1591	1594	1601	1610
Carry-out Stocks	227	231	229	231	228	228	229	232	235	237	242

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	35.34	35.32	35.46	35.50	35.48	35.50	35.68	35.84	35.86	36.00	36.16
Stocks/Consumption	14.32	14.47	14.30	14.43	14.34	14.40	14.43	14.61	14.73	14.82	15.02

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	2400	2480	2500	2528	2548	2569	2586	2603	2617	2630	2645
Yield	21.00	21.78	22.21	22.47	22.64	22.77	22.87	22.97	23.05	23.14	23.22
Production	50400	54019	55527	56799	57686	58493	59141	59780	60333	60847	61417

Former Soviet Union - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugar Beets	11.56	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1975	1631	1617	1571	1560	1543	1542	1536	1540	1547	1542
Production	5808	6245	6419	6566	6668	6762	6837	6911	6974	7034	7100
Net Imports	3731	4360	4110	4032	3920	3872	3795	3757	3714	3640	3608
Exports	141	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Imports	3872	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Consumption	10634	10619	10575	10610	10606	10634	10638	10663	10682	10679	10702
Carry-out Stocks	1631	1617	1571	1560	1543	1542	1536	1540	1547	1542	1548

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	36.22	36.22	36.11	36.26	36.29	36.42	36.48	36.61	36.72	36.76	36.89
Stocks/Consumption	15.34	15.23	14.86	14.71	14.54	14.50	14.44	14.45	14.49	14.44	14.46

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested	1160	1159	1161	1161	1162	1162	1163	1163	1163	1163	1163
Yield	61.20	61.19	61.59	62.11	62.67	63.24	63.81	64.39	64.96	65.54	66.11
Production	70992	70950	71484	72110	72813	73498	74199	74876	75542	76229	76894

Thailand - Sugar Extraction Rates (percent)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sugarcane	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)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Carry-in Stocks	1745	2965	2704	2575	2516	2491	2485	2488	2496	2507	2519
Production	7900	7805	7863	7932	8009	8085	8162	8236	8310	8385	8458
Net Exports	2400	2857	2755	2724	2736	2761	2798	2834	2871	2912	2948
Exports	2300	#N/A	#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	#N/A
Consumption	2300	2209	2237	2268	2298	2330	2361	2394	2427	2461	2496
Carry-out Stocks	2965	2704	2575	2516	2491	2485	2488	2496	2507	2519	2533

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Per Capita Consumption	33.92	32.36	32.59	32.84	33.10	33.38	33.66	33.97	34.29	34.62	34.97
Stocks/Consumption	128.91	122.44	115.09	110.93	108.38	106.66	105.35	104.26	103.29	102.35	101.45

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Net Exports	-13612	-12081	-11955	-11530	-11477	-11445	-11440	-11485	-11721	-11580	-11610

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

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017
0	13.84	12.00	13.85	13.35	14.00	13.70	14.10	13.85	13.75	14.25	13.95
\$/ton	305.12	264.55	305.34	294.31	308.64	302.03	310.85	305.34	303.13	314.16	307.54

World Exp	41305	39042	39575	39349.9	39494	39695.8	39953.9	40365.4	41038.7	41223.6	41575
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