United States Department of Agriculture

Economic Research Service

Situation and Outlook

SSS-M-349

September 18, 2017

Sugar and Sweeteners Outlook

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Recent Hurricanes in the Southeast Disrupt U.S. Sugar Market

The next release is October 18, 2017

Approved by the World Agricultural Outlook Board.

The September *World Agricultural Supply and Demand Estimates* (WASDE) lowered projected domestic sugar production in 2017/18 by 41,000 short tons, raw value (STRV) from the previous month's report. Cane sugar production is increased 10,000 STRV based on higher production in Texas. Hurricane Harvey made landfall on the Texas coast in late-August. The sugarcane-producing regions in Texas and Louisiana are not expected to see significant impacts on their sugar production, however. Hurricane Irma made landfall in Florida in early-September. The impact on Florida's sugar production for 2017/18 has not yet been assessed, and this month's projections do not yet take the storm into account. Beet sugar production for 2017/18 is lowered 51,000 STRV. That reduction is due to additional production from the crop currently being harvested, arriving during the early-season period before October 1. Estimated imports from Mexico in 2016/17 are lowered, while projected imports are raised in 2017/18 due to an increase in Mexico's available supplies.

The hurricanes are expected to impact sugar refineries' operations and supply chains in the Southeast. As a result, estimated U.S. domestic deliveries are reduced 100,000 STRV for 2016/17. Projected deliveries for 2017/18 are raised 100,000 STRV, however, as the interruptions are expected to be resolved by early 2017/18. The stocks-to-use ratio is estimated to be 14.1 percent in 2016/17 and projected to be 13.2 percent in 2017/18.

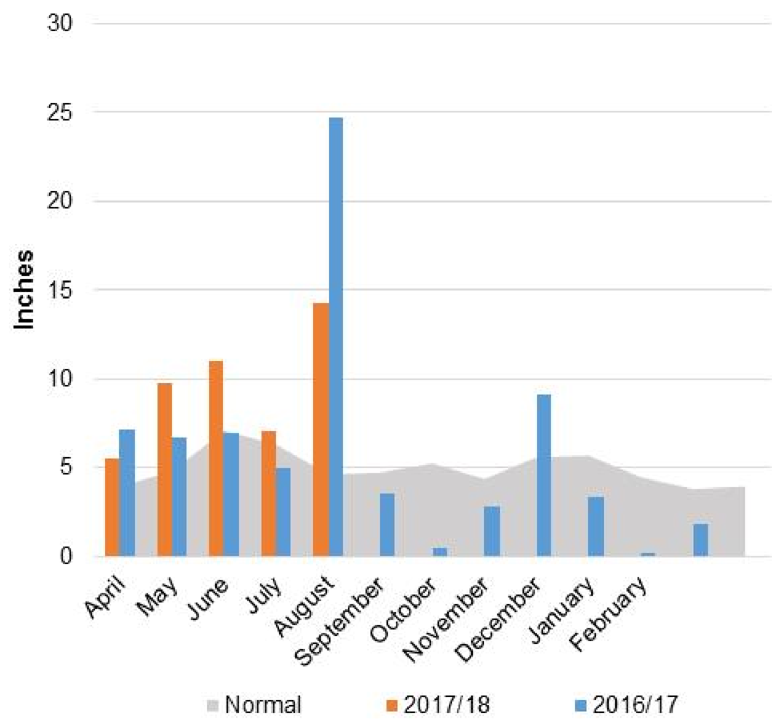
Mexico's sugar market in 2016/17 is estimated to have a modest 23.1 percent stocks-to-consumption ratio, resulting from slightly higher supplies from increased imports and reduced exports to the United States compared with the August report. Tight supplies projected for 2017/18 are expected to constrain available supplies for export, despite the larger carryin expected from 2016/17. The projected 2017/18 stocks-to-consumption ratio is 18.0 percent, which is the estimated minimum inventory level required to avoid severe shortages in the domestic market.

Production levels remain strong, although impact of recent storms remains uncertain

The 2017 hurricane season has come into play for all sugarcane-producing regions in the United States. Hurricane Harvey's storm path in late August was in close proximity to both Texas and Louisiana sugarcane regions. The storm ultimately left sugarcane production in Texas relatively unaffected by its wind and rain. Sugar production in Texas in 2017/18 is projected to be 160,000 short tons, raw value (STRV), a 10,000-STRV increase from the August projection, as the National Agricultural Statistics Service (NASS) raised sugarcane yields in the region from 34.0 to 39.5 tons per acre.

Hurricane Harvey produced additional precipitation in Louisiana in an already-wet growing season. Ultimately, the storm's impact on the State's sugar production for 2017/18 is expected to be minimal; similar to 2016/17, when the State also experienced extreme precipitation in August but was still able to harvest and process a successful crop. NASS slightly reduced sugarcane yields in the State from 30.4 to 29.6 tons per acre. A raised forecast for harvested acres, combined with a slightly higher recovery rate, results in projected 2017/18 Louisiana sugar production to be unchanged from the August projection of 1.626 million STRV.

Figure 1
Lafayette, LA precipitation, monthly, 2015/16 to 2016/17 and normal



Source: U.S. Department of Agriculture, Office of the Chief Economist.

Hurricane Irma's storm path went through Florida's sugarcane crop in early September. The storm occurred after the reporting period covered in NASS's September *Crop Production* report. As a result, the WASDE production projections do not reflect the impacts of the hurricane on Florida's crop and sugar production. NASS lowered sugarcane production slightly, as lower yields were offset by a higher harvested area forecast. Florida sugar production for 2017/18 is projected to be 2.126 million STRV, unchanged from the previous month's report. The impacts of Hurricane Irma may not be fully realized for several weeks or months, however. The crop still needs to be surveyed for damage and assessed for the potential for recovery in time for harvest season, which begins in October and typically continues into April or later.

Table 1 -- U.S. sugar: supply and use, by fiscal year (Oct./Sept.), September 2017.

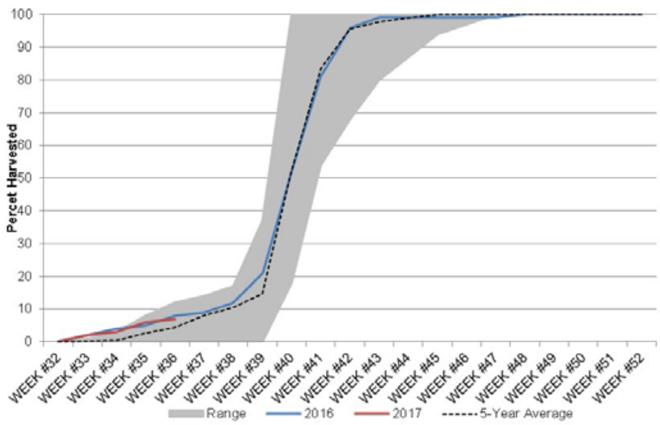
Items	2015/16	2016/17 (estimate)	2017/18 (forecast)	2015/16	2016/17 (estimate)	2017/18 (forecast)
	1,000 Short tons, raw value			1,000 Metric tons, raw value		
Beginning stocks	1,815	2,054	1,760	1,647	1,863	1,597
Total production	8,989	8,848	8,929	8,155	8,027	8,100
Beet sugar	5,119	4,998	5,017	4,644	4,534	4,551
Cane sugar	3,870	3,850	3,912	3,511	3,493	3,549
Florida	2,173	2,055	2,126	1,971	1,864	1,929
Louisiana	1,428	1,612	1,626	1,296	1,462	1,475
Texas	116	140	160	106	127	145
Hawaii	152	43	0	138	39	0
Total imports	3,341	3,338	3,688	3,031	3,028	3,346
Tariff-rate quota imports	1,620	1,727	1,707	1,469	1,567	1,549
Other program imports	396	385	200	359	349	181
Non-program imports	1,325	1,226	1,781	1,202	1,112	1,616
Mexico	1,309	1,216	1,771	1,187	1,103	1,607
Total supply	14,145	14,240	14,377	12,832	12,918	13,043
Total exports	74	125	25	67	113	23
Miscellaneous	-33	0	0	-30	0	0
Deliveries for domestic use	12,051	12,355	12,678	10,932	11,208	11,501
Transfer to sugar-containing products for exports under re-export program	148	120	120	134	109	109
Transfer to polyhydric alcohol, feed, other alcohol	22	35	35	20	32	32
Commodity Credit Corporation (CCC) sale for ethanol, other	0	0	0	0	0	0
Deliveries for domestic food and beverage use	11,881	12,200	12,523	10,778	11,068	11,361
Total Use	12,091	12,480	12,703	10,969	11,322	11,524
Ending stocks	2,054	1,760	1,674	1,863	1,597	1,519
Private	2,054	1,760	1,674	1,863	1,597	1,519
Commodity Credit Corporation (CCC)	0	0	0	0	0	1
Stocks-to-use ratio	16.99	14.10	13.18	16.99	14.10	13.18

Source: U.S. Dept. of Agriculture, Economic Research Service, Sugar and Sweetener Outlook.

Strong sugarbeet yields and improved sucrose extraction rates for the 2017/18 U.S. sugarbeet crop will boost the 2017/18 crop-year beet sugar production (August to July), at 5.131 million STRV. NASS reduced its forecast sugarbeet crop by a slight 0.5 percent in the September *Crop Production* report, due to slightly lower—but still record—national yields. Additionally, growing conditions in the eastern production regions of North Dakota, Minnesota, and Michigan have been cooler and drier than in 2016/17. Warm, humid summer conditions during 2016/17 resulted in a high prevalence of cercospora leaf spot in those regions, which lowered the sugar production from processed sugarbeets last season. Improved conditions should result in normal sucrose extraction rates from sliced sugarbeets.

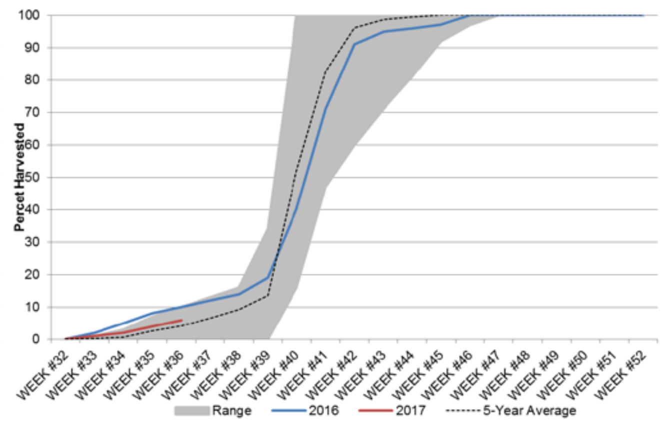
Beet sugar production in fiscal year 2016/17 is unchanged at 4.998 million STRV. Final reported 2016/17 crop-year sugar from sliced beets was 60,000 STRV less than the previous month’s estimate. This is offset by an increase in production during August and September from the early-season 2017/18 crop harvest, as improved sugar content and the pace of harvest indicate that production should be comparable to the previous year’s early-season total. Beet sugar production in 2017/18 is reduced 51,000 STRV to 5.017 million STRV, as more of the crop’s sugar is expected to be accounted for in the processing period prior to October 1.

Figure 2
North Dakota sugarbeet harevest progress, 2000 to 2017



Source: National Agricultural Statistics Service, USDA.

Figure 3
Minnesota sugarbeet harevest progress, 2000 to 2017



Source: National Agricultural Statistics Service, USDA.

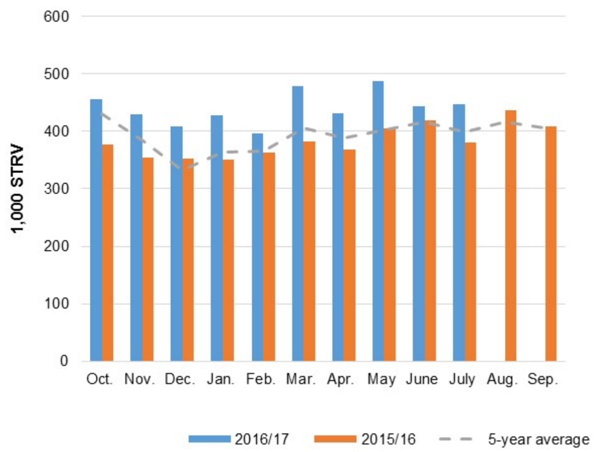
Deliveries impacted in the short-term by hurricanes; longer-term trends projected to prevail

In addition to production, Hurricanes Irma and Harvey affected forecast deliveries in 2016/17 and 2017/18. Hurricane Irma's impact included several Southeast Atlantic sugar refineries. Some refineries were forced to shut down operations, divert or delay incoming shipments of raw sugar, and adjust freight schedules due to logistical complications and bottlenecks. Delays are also likely to occur for non-reporter imports from Mexico and Caribbean exporters.

The likely delays and complications result in a 100,000-STRV reduction in deliveries for food and beverage use, totaling 12.200 million STRV. These delays are likely to be compensated for in 2017/18, however, as projected deliveries for food and beverage use are increased 100,000 STRV to 12.523 million STRV. This would represent a 2.6 percent increase year-over-year.

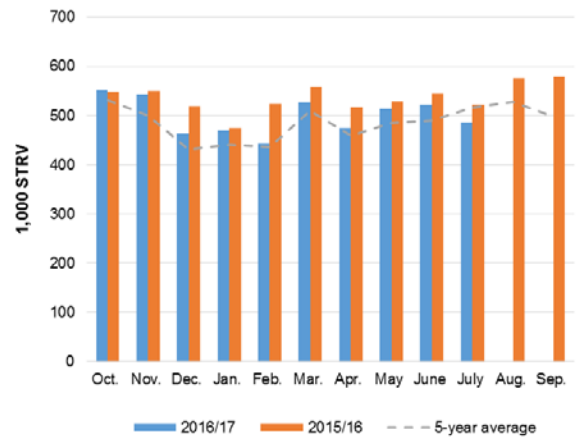
Through July, 2016/17 total deliveries for food and beverage have been 2.8 percent higher than the previous year. This has been the result of a 17.5-percent increase from beet processors and a 5.6-percent decline from cane sugar refiners and processors. Beet sugar deliveries have been strong throughout the year, aided by large supplies due to multiple years of strong production and a discount to refined cane sugar for the past few years. Cane sugar deliveries from domestic processors and refiners have been lagging behind the previous year's pace due to the price premium and relative tight inventories of raw sugar for refiners to process. Tight refiners' inventories are expected to have some relief due to the increase in the 2016/17 raw sugar TRQ and Export Limit—including the extension of 2016/17 raw sugar TRQ entries through the end of October. Price differentials still exist, but have narrowed from 7.5 cents per pound at the beginning of June to the current difference of 2.5 cents per pound through the beginning of September.

Figure 4
Beet sugar deliveries, monthly, 2010/11 to 2016/17



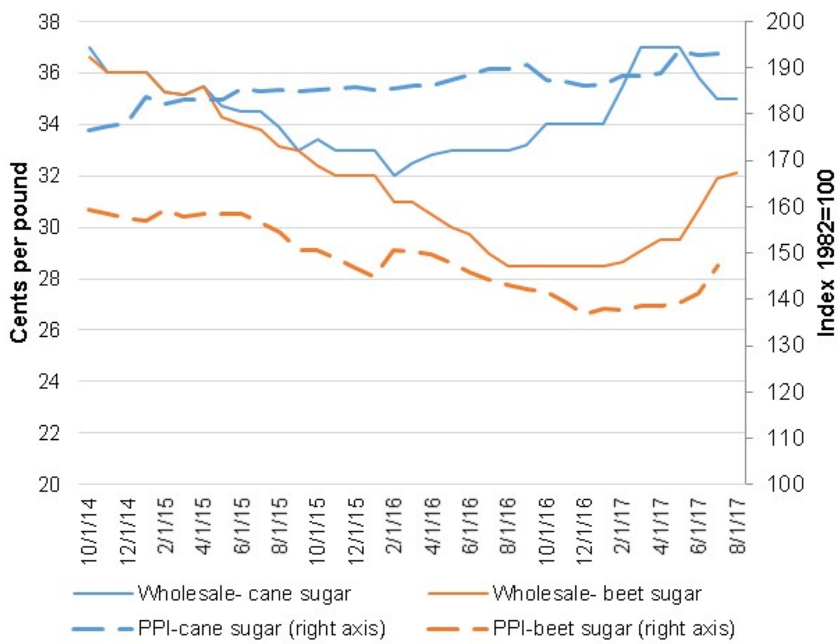
Source: U.S. Department of Agriculture, Farm Service Agency.

Figure 5
Cane sugar deliveries, monthly, 2010/11 to 2016/17



Source: U.S. Department of Agriculture, Farm Service Agency.

Figure 6
Refined sugar prices, wholesale and Producer Price Indices, monthly



Source: U.S. Department of Agriculture, Economic Research Service.

As discussed in previous months' reports, annual growth on a fiscal-year basis has been variable over the past several years, as policy events have disrupted normal seasonality in sugar deliveries. Underlying trends in deliveries in sugar are much more stable, however. The current forecasts for food and beverage deliveries remain in line with the longer-term trends. There are several factors that could affect the total level of deliveries in both 2016/17 and 2017/18. The pace of non-reporter imports presents one component of deliveries that has a high degree of variability on a month-to-month basis. Additionally, how much refiners use the additional raw sugar TRQ supplies from the 2017/18 for building inventories versus increasing marketings is another market indicator that will need to be monitored in developing future projections.

Sugar imports from Mexico reduced for 2016/17, but increased for the 2017/18 projection

Fewer imports are estimated for 2016/17 compared with the August report due to a reduction in imports from Mexico. Although the U.S. Department of Commerce (USDOC) increased the 2016/17 Export Limit by 104,000 STRV in July, recent reports indicate the full quantity of the Export Limit will not be shipped. As a result, estimated imports from Mexico 2016/17 are reduced 50,000 STRV to 1.216 million STRV for the year. Fewer shipments in 2016/17 result in more available supplies in 2017/18, however. Under the terms of the amended suspension agreements signed by the USDOC and the Government of Mexico in June 2017, the U.S. Needs are calculated at 1.812 million STRV based on the September WASDE. Imports from Mexico are projected to be 1.771 million STRV, which is a 58,000 STRV increase from the previous month, but is still constrained by available exportable supplies in Mexico. If Mexico processors ship the full projected U.S. Needs total, it would likely result in a shortage of supplies for the domestic market. This is not a likely outcome.

The only other change in the outlook for U.S. sugar imports for 2016/17 in the September WASDE is a 35,000-STRV increase in imports under the re-export program to 385,000 STRV. This was increased due to the pace of imports reported through August. Imports under quota programs remain unchanged: estimated at 1.727 million STRV for 2016/17 and projected to be 1.707 million STRV for 2017/18.

For 2016/17, the reduction in deliveries exceeded the reduction in supplies, resulting in ending stocks increasing 85,000 STRV to 1.760 million STRV. The stocks-to-use ratio is increased from 13.3 percent in the August report to 14.1 percent in the September report. Projected ending stocks for 2017/18 are raised 2,000 STRV to 1.674 million STRV, with a resulting 13.2-percent stocks-to-use ratio.

Mexico supplies projected to be tight in 2017/18, encouraging slightly higher ending stocks for 2016/17

The Mexico sugar outlook is for relatively constrained supplies, given strong domestic prices and strong export demand to the United States. Sugar production in Mexico for 2017/18 is projected to be 6.100 million metric tons, actual value (MT), unchanged from the previous projection. This would be a 2.4-percent increase from 2016/17. Mexico's *Comité Nacional para el Desarrollo Sustentable de la Caña de Azúcar* (Conadesuca) has not released any official estimates for the 2017/18 sugarcane crop. Assuming normal weather conditions over the course of the growing and harvesting seasons, the projection is based on an expansion of harvested area in line with historical highs and yields and recovery rates in line with historical trends. Total supplies are increased 7,000 STRV for 2016/17, as estimated imports are raised to 100,000 MT due to pace-to-date.

Table 2 -- Mexico sugar supply and use, 2015/16 - 2016/17 and projected 2017/18, September 2017.

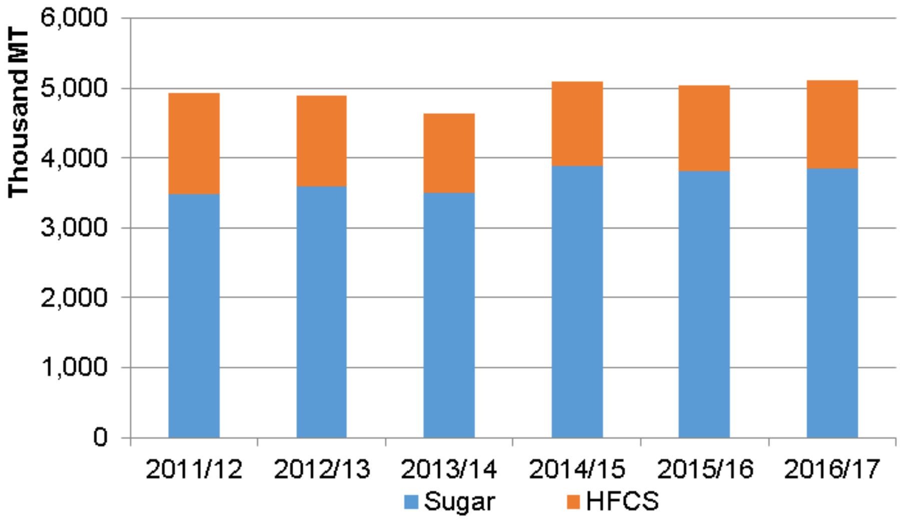
Items	2015/16	2016/17 (estimate)	2017/18 (forecast)
		1,000 metric tons, actual weight	
Beginning stocks	811	1,037	1,031
Production	6,117	5,957	6,100
Imports	83	100	75
Imports for consumption	17	40	25
Imports for sugar-containing product exports, IMMEX 1/	66	60	50
Total supply	7,011	7,094	7,206
Disappearance			
Human consumption	4,387	4,468	4,534
For sugar-containing product exports (IMMEX)	390	390	330
Other deliveries and end-of-year statistical adjustment	-10	0	0
Total	4,767	4,858	4,864
Exports	1,207	1,206	1,526
Exports to the United States & Puerto Rico	1,120	1,041	1,516
Exports to other countries	86	165	10
Total use	5,974	6,063	6,390
Ending stocks	1,037	1,031	816
		1,000 metric tons, raw value	
Beginning stocks	859	1,099	1,093
Production	6,484	6,315	6,466
Imports	88	106	80
Imports for consumption	18	42	27
Imports for sugar-containing product exports (IMMEX)	70	64	53
Total supply	7,431	7,520	7,638
Disappearance			
Human consumption	4,650	4,736	4,806
For sugar-containing product exports (IMMEX)	413	413	350
Other deliveries and end-of-year statistical adjustment	-10	0	0
Total	5,053	5,149	5,156
Exports	1,279	1,278	1,617
Exports to the United States & Puerto Rico	1,187	1,103	1,607
Exports to other countries	92	175	11
Total use	6,332	6,427	6,773
Ending stocks	1,099	1,093	865
Stocks-to-human consumption (percent)	23.6	23.1	18.0
Stocks-to-use (percent)	17.4	17.0	12.8
High fructose corn syrup (HFCS) consumption (dry weight)	1,482	1,484	1,484

1/ IMMEX = Industria Manufacturera, Maquiladora y de Servicios de Exportación.

Source: USDA, *World Agricultural Supply and Demand Estimates* and Economic Research Service, Sugar and Sweeteners Outlook; Conadesuca.

Domestic deliveries for human consumption in 2017/18 are projected to be 4.534 million MT, unchanged from the August report. This would represent a 1.5-percent increase from the 2016/17 estimate of 4.468 million MT. Through July, deliveries for human consumption were 0.6 percent higher than the previous year. Total sweetener deliveries are 1.7 percent larger than 2015/16, though, as high-fructose corn syrup (HFCS) deliveries have been 4.9 percent ahead of last year. Projections for 2017/18 are based on sugar deliveries increasing with population growth, but keeping total per capita sweetener (sugar and HFCS) consumption unchanged from the 2016/17 estimate.

Figure 7
Mexican sweetener consumption October to July, fiscal year



Source: Conadesuca.

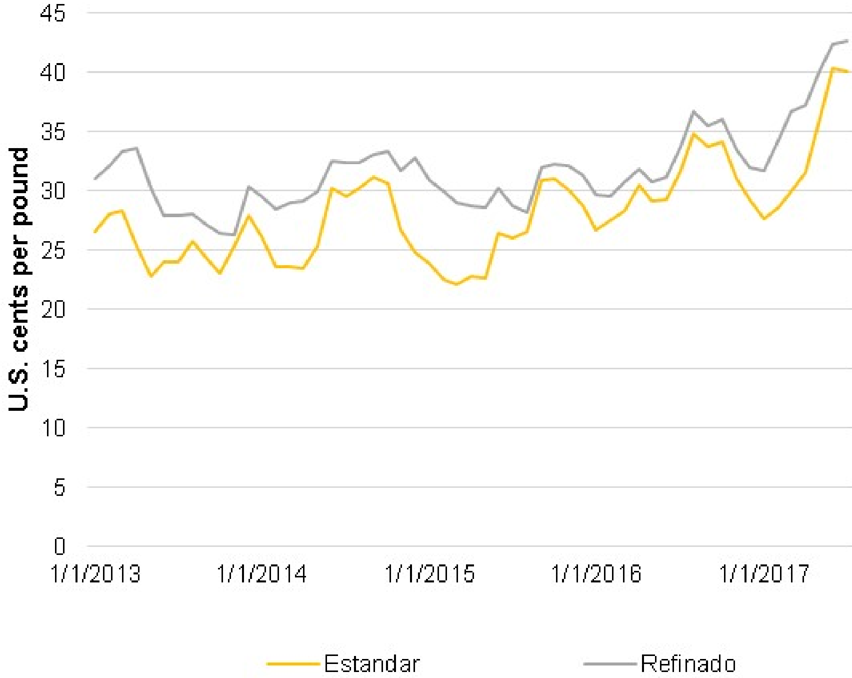
Estimated exports in 2016/17 are reduced 43,000-MT, totaling 1.206 million MT. The reduction is due to fewer shipments to the United States, as discussed in the U.S. import section. The reduction in exports will translate into higher ending stocks heading into 2017/18, totaling 1.031 million MT. The resulting 23.1-percent stocks-to-consumption ratio is around the historical average and does not indicate an oversupplied market, but the tight supply balance projected for 2017/18 is likely encouraging additional inventories.

Ending stocks for 2017/18 are projected at 816,000 MT, which would translate to an 18.0 percent stocks-to-consumption ratio. This level is estimated to be a minimum inventory level needed for the market, otherwise, shortages within the domestic market would likely occur before the subsequent sugarcane harvest's production comes to the market. This illustrates the tight supply situation for Mexico in 2017/18, which constrains the potential for exports during the year.

Based on the terms of the amended Suspension Agreements, signed by the USDOC and Government of Mexico in June 2017, the current projection for 2017/18 U.S. Needs would translate to 1.551 million MT. Projected exports to the United States are 1.516 million MT, however, due to the constraint in available supplies for export, when taking into account projected domestic deliveries and a minimum level of exports to non-U.S. destinations. While constrained, the projected shipments to the United States would be a 45.6-percent increase—or 475,000 MT-increase from the estimated shipments expected for 2016/17.

This increase is one of the main reasons why Mexico's market is transitioning suddenly from a relatively well-supplied market to a tight one. This has been transmitted to Mexico sugar prices, which have increased over the past several months as the U.S.-Mexico market outlook for 2017/18 has come into focus. Prices have leveled off in recent months in both Mexican Peso and U.S. dollar terms. The monthly average estandar sugar price for August in the Mexico City wholesale market remained above 40 cents per pound, demonstrating the relatively tight domestic market.

Figure 8
Mexico Estandar and Refinado sugar prices, monthly, January 2013 to August 2017



Source: U.S. Department of Agriculture, Economic Research Service.

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