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United States Department of Agriculture

USDA's
93rd
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A New Horizon: The Future of Agriculture

February 23-24, 2017 • Crystal Gateway Marriott Hotel, Arlington, Virginia

Presentation from the USDA Agricultural Outlook Forum 2017

United States Department of Agriculture
93rd Annual Agricultural Outlook Forum
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United States Department of Agriculture

U.S. Sugar Market and the Divergence of Beet Sugar and Cane Sugar Markets

Michael McConnell
Economic Research Service, USDA
February 24, 2017

Economic Research Service
www.ers.usda.gov



Outline of Presentation

- Key Question:
 - What is the degree of substitutability between refined cane sugar and refined beet sugar?
- Longer-term trends
- Current market conditions
- Implications for USDA forecasting and sugar policy mechanisms



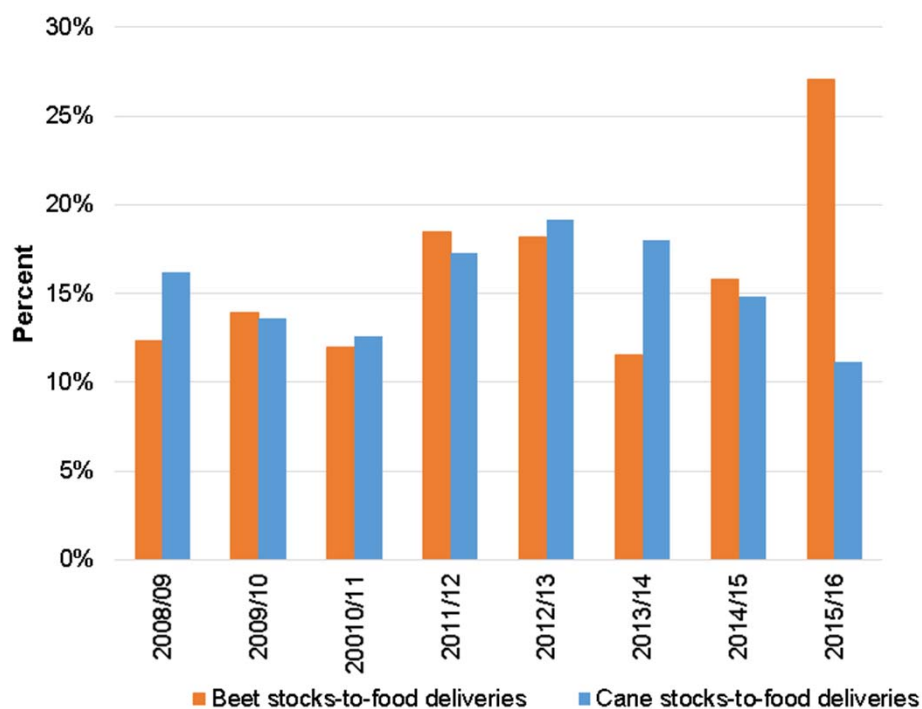
Recent Developments

- Sustained price differences for refined cane and beet sugar
- GMO Labelling Issues
 - State legislation
 - Federal legislation
- Food manufacturers' sourcing strategies



Divergence in Refined Sugar Markets is a New Development in U.S. Sugar Market

Stocks-to-food use, beet vs. cane deliveries, fiscal year, 2008/09 to 2015/16

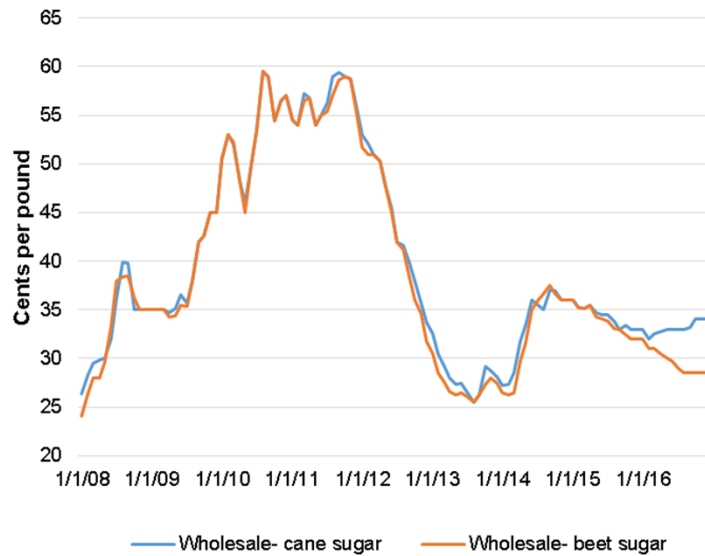


Source: U.S. Department of Agriculture, Economic Research Service.



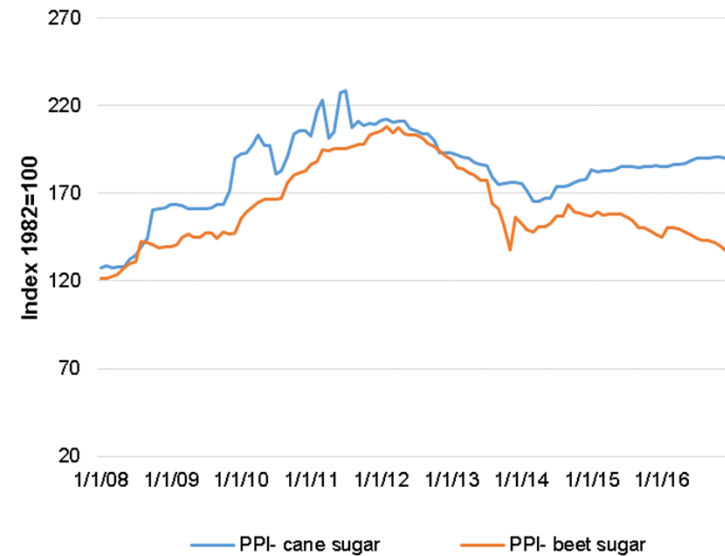
Sustained Price Premiums/Discounts Between Cane Sugar and Beet Sugar is Also a Recent Development

Refined sugar prices, wholesale, monthly



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

Refined sugar prices, Producer Price Index, monthly

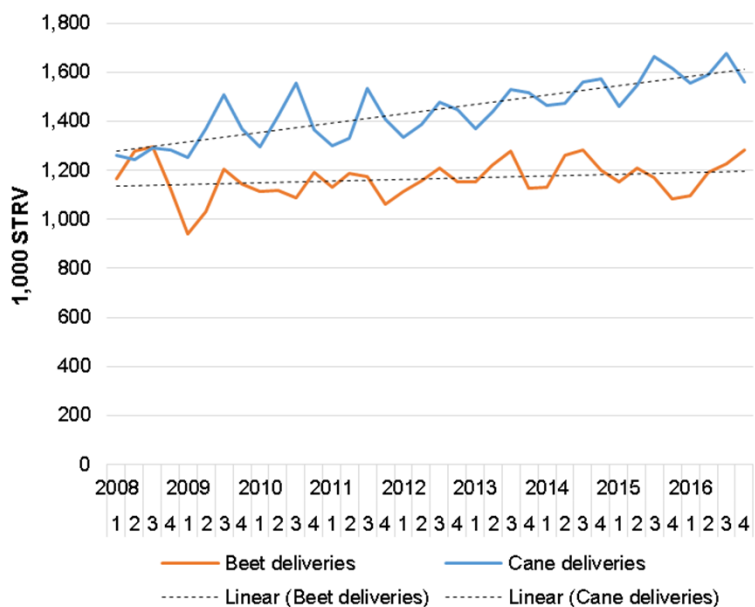


Source: U.S. Department of Agriculture, Economic Research Service.



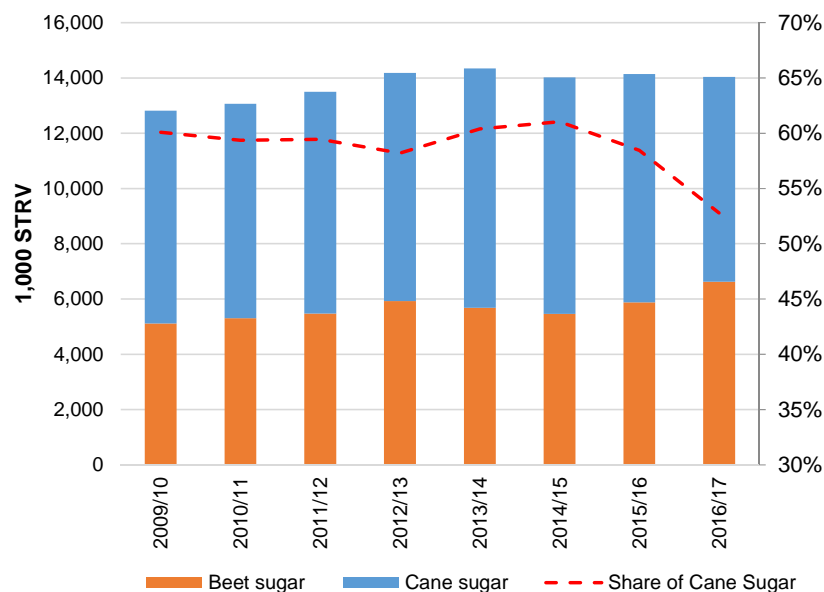
Cane/Beet Sugar Mix Trends for Deliveries and Supplies Have Differed, Particularly Since 2014/15

Sugar deliveries, by beet sugar and cane sugar, quarterly, 2008 to 2016



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

Total sugar supplies, by cane sugar vs. beet sugar, fiscal year, 2008/09 to 2016/17



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



Differences Between Cane and Beet Sugar Markets Potentially Growing in 2016/17

Beet and cane sugar supply and use hypothetical for 2016/17, by fiscal year (Oct./Sept.), February 2017.

	Beet sugar			Cane sugar			Total sugar		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
	<i>1,000 short tons, raw value</i>								
Beginning stocks	553	747	1,244	1,257	1,068	810	1,810	1,815	2,054
Domestic production	4,893	5,119	5,371	3,763	3,870	3,869	8,656	8,989	9,240
Imports 1/	13	10	13	3,540	3,330	2,731	3,553	3,341	2,744
Total supply	5,460	5,877	6,628	8,559	8,268	7,410	14,019	14,145	14,038
Domestic deliveries for consumption 2/	4,730	4,598	4,762	7,191	7,283	7,238	11,921	11,881	12,000
Other deliveries 2/	20	47	43	110	123	112	131	170	155
Exports	1	2	50	184	72	25	185	74	75
Misc.	-39	-14	0	6	-19	0	-33	-33	0
Total use	4,713	4,633	4,855	7,491	7,458	7,375	12,204	12,091	12,230
Ending stocks	747	1,244	1,773	1,068	810	35	1,815	2,054	1,808
Stocks-to-use ratio	15.85%	26.85%	36.53%	14.26%	10.86%	0.47%	14.87%	16.99%	14.78%

1/ Nearly all imports are counted as cane sugar, except Canada refined imports. It is possible that additional refined sugar imports may be from sugarbeet crops, although this proportion is likely minor. 2/ Beet and cane sugar human consumption for 2016/17 assume same proportion as 2014/15, while other deliveries assumes the same proportion as 2015/16.

Note: Shaded fields represent hypothetical market scenarios based on assumptions carried over into 2016/17 projections and are not official USDA projections.

Source: U.S. Dept. of Agriculture, Farm Service Agency; Foreign Agricultural Service; Economic Research Service.

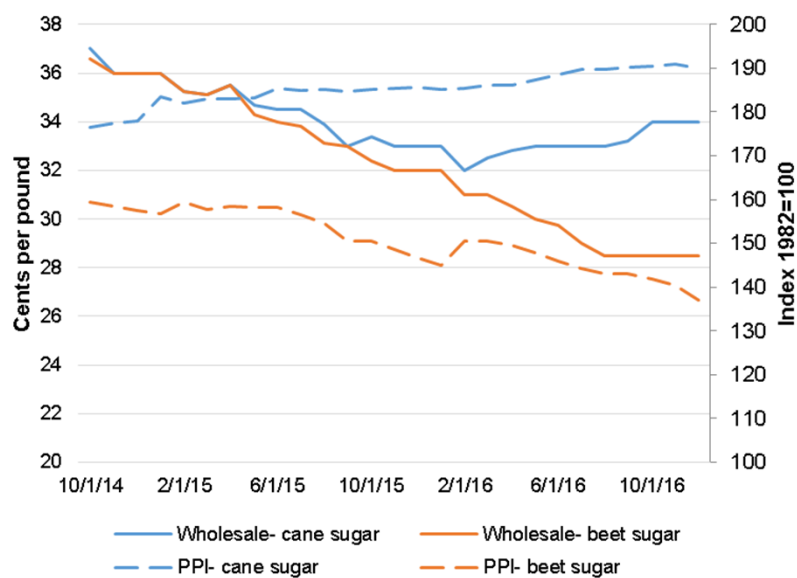


Important Trends Thus Far in 2016/17



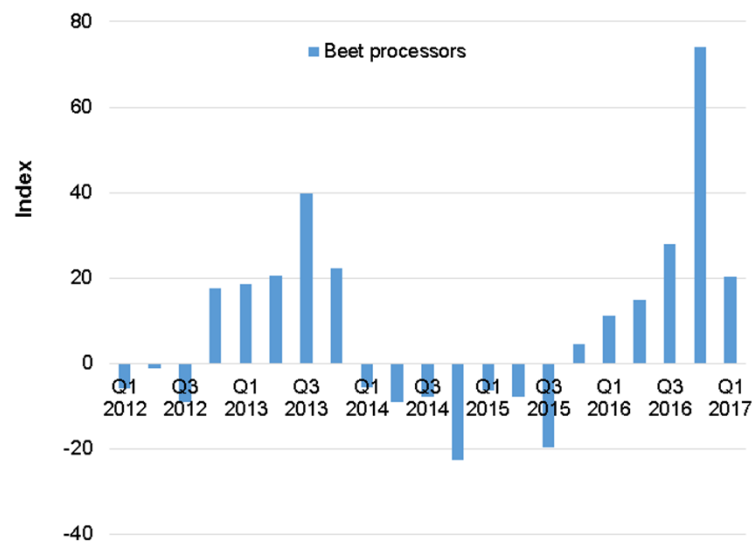
Beet Sugar Inventories Have Come Down in 2016/17, But Some Indications Are That Prices Also Softened

Refined sugar prices, wholesale and Producer Price Indices, monthly



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

December 31 beet sugar inventory index 1/, fiscal year quarters, FY2012 to FY2017

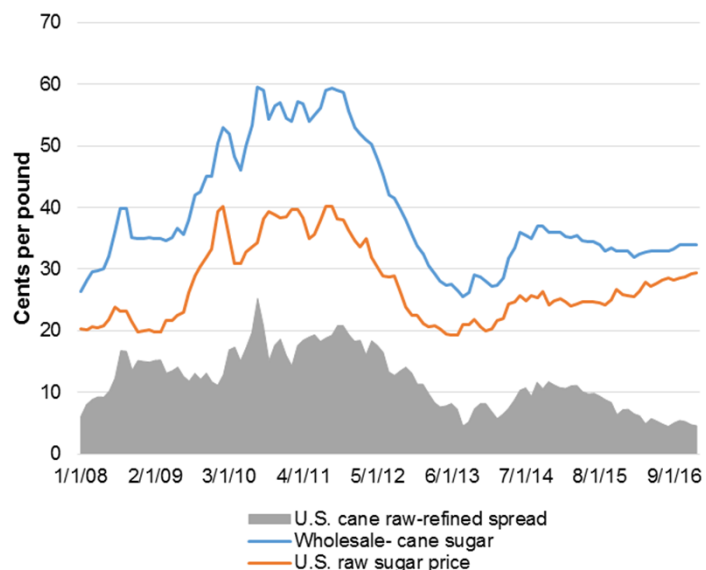


1/ Indexed against 5-year average from FY2011 to FY2015.
Source: U.S. Department of Agriculture, Farm Service Agency.



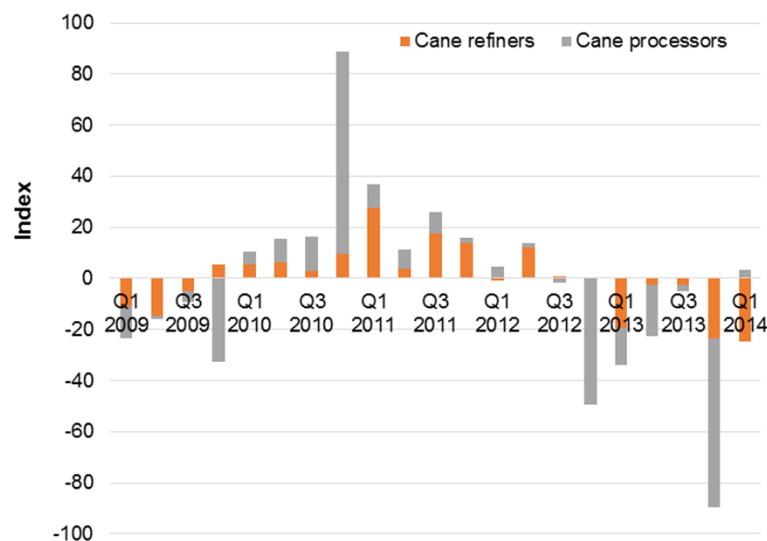
Despite Refined Sugar Price Premiums, Cane Refining Margins Constrained by High Raw Sugar Prices

Refined sugar prices, wholesale, monthly



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

December 31 cane sugar inventories index 1/, fiscal year quarters, FY2009 to FY2017



1/ Indexed against 5-year average from FY2011 to FY2015.
Source: U.S. Department of Agriculture, Farm Service Agency.



USDA Sugar Program is Structured to Treat Refined Sugar Market as a Single Market

- The USDA Sugar Program:
 - Domestic Marketing Allotments
 - Sugar Loan Program
 - Tariff Rate Quotas
- Codified Objectives for Allotment Adjustment
 - Maintain adequate supplies of raw and refined sugar in the domestic market.
 - Maintain raw and refined sugar prices above forfeiture levels to avoid the forfeiture of sugar to the CCC.



Adjusting the Projection Processes to the New Market Developments

- If beet and cane sugar markets continue to respond differently, total stocks-to-use market indicator does not give a comprehensive picture of the U.S. sugar market.
- Considerations to include in the WASDE and Market Outlook products going forward
 - Separate projections for cane and beet sugar deliveries
 - Completely separate supply and use balances
 - Implications for the Long-term projection models if the market segments



Conclusions

- Are cane and beet sugar perfect substitutes?
 - Evidence to suggest that the market has changed, but it is still integrated.
- The divergence between the balances are likely to persist through 2016/17.
- USDA policy mechanisms have limited ability to address the divergence between cane and beet markets.
- There are new market metrics and indicators that are important.



Thank You!

Michael McConnell

michael.mcconnell@ers.usda.gov

<https://www.ers.usda.gov/data-products/sugar-and-sweeteners-yearbook-tables/>

<https://www.ers.usda.gov/topics/crops/sugar-sweeteners/>



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