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June 18, 2021

The Honorable Tom Vilsack
Secretary
U.S. Department of Agriculture
1400 Independence Avenue, S.W.
Washington, D.C. 20250

Mr. Bruce Summers
Administrator, Ag Marketing Service
U.S. Department of Agriculture
1400 Independence Avenue, S.W.
Washington, D.C. 20250

Dear Secretary Vilsack & Administrator Summers:

We write today to provide information on critical goods and infrastructure for the U.S. sugar sector in response to your request for information. The structure of the domestic sugar industry in the United States was resilient in meeting the joint challenges of adverse weather in 2019, which lowered domestic sugar stocks, and the COVID-19 pandemic in 2020, which shocked consumer demands in multiple ways. The U.S. sugar supply chain is deliberately configured to withstand such shocks, which are all too common for agricultural commodities.

On February 24, 2021, President Biden issued an Executive Order (EO) on “America's Supply Chains,” which directs the Secretary of Agriculture to submit, within one year, a report to the President that assesses the supply chains for the production of agricultural commodities and food products. The U.S. Department of Agriculture (USDA) has requested that the public submit comments and information (“Supply Chains for the Production of Agricultural Commodities and Food Products,” 86 FR 20652) to assist the USDA in preparing the report required by EO 14017. This submission from the American Sugar Alliance is in response to that request.

As noted in 86 FR 20652, USDA notes its particular interest in those essential goods necessary for nutritional security given its related importance to national and economic security. This submission will detail how sugar is a critical and essential good for national and economic security.

Moreover, as noted by USDA, sufficient processing, distribution, and production capacity across all agricultural commodities are critical for ensuring adequate access to essential goods. This submission will discuss how the current domestic sugar and trade policies were critical in maintaining the integrity and resilience of the domestic supply chain for the production, processing, and distribution of safe and adequate supplies of sugar for the American public during the pandemic despite a challenging economic situation.

INTRODUCTION: America’s Supply Chains for Sugar

The USDA notes in the request for public responses to direct comments at the policy objectives outlined in EO 14017 as they affect agricultural and food products supply chains.

In EO 14017 President Biden affirmed that the

“... United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security. Pandemics and other biological threats, cyber-attacks, climate shocks and extreme weather events, terrorist attacks, geopolitical and economic competition, and other conditions can reduce critical manufacturing capacity and the availability and integrity of critical goods, products, and services. Resilient American supply chains will revitalize and rebuild domestic manufacturing capacity, maintain America's competitive edge in research and development, and create well-paying jobs. They will also support small businesses, promote prosperity, advance the fight against climate change, and encourage economic growth in communities of color and economically distressed areas...”

The most recent report examining the U.S. sugar-producing industry estimates that 142,000 jobs in 22 states and \$20 billion in annual economic activity are associated with domestic sugar production.¹ Many of the jobs and businesses associated with the U.S. sugar industry are in highly vulnerable and economically distressed rural areas.²

American food manufacturers and consumers depend on a reliable, dynamic, geographically-dispersed domestic sugar industry to provide safe, high-quality, responsibly-produced sugar at a reasonable price.

U.S. sugar policy is working well for American consumers, food manufacturers, and taxpayers. In 2020, 34.4 million tons of sugarcane and 33.6 million tons of sugarbeets were produced in the United States for processing into sugar for domestic food manufacturing and for household consumption. In total, 4.3 million tons of sugar from domestic sugarcane were refined and 5.1 million tons of sugar from domestic sugarbeets were processed.

And as noted in E.O. 14017, resilient supply chains, like those around our domestic sugar supplies, are

“... secure and diverse—facilitating greater domestic production, a range of supply, built-in redundancies, adequate stockpiles, safe and secure digital networks, and a world-class American manufacturing base and workforce. Moreover, close cooperation on resilient supply chains with allies and partners who share our values will foster collective economic and national security and strengthen the capacity to respond to international disasters and emergencies...”

¹ LMC International, “*The Economic Importance of the Sugar Industry to the U.S. Economy – Jobs and Revenues*,” Oxford, England, August 2011.

² See examples of how the U.S. sugar industry helped recovery last year in rural America at <https://sugaralliance.org/sugar-industry-sustains-communities-during-pandemic/15934> and <https://sugaralliance.org/sugar-industry-lends-helping-hand-to-support-nations-recovery/15953>.

However, concerns over adequate domestic supplies of sugar are not new to the United States. For example, for reasons of food security, from 1890-1894 the U.S. Congress offered a bounty to entice investment by farmers to grow the crop and investors to build factories to encourage the growth of a domestic sugar industry.³ During WWII sugar was the first commodity rationed and the last commodity to come off rationing.

More recently, during the 2020 pandemic, consumer hoarding behavior was observed at the Nation's retail grocery stores and supermarkets as essential food and consumer goods supplies were overwhelmed by spiking demands. Ingredients for baking and cooking (sugar, flour, oils, etc.) were top food items in demand as retail food service shuttered overnight. To meet those challenges and to provide sufficient supplies to food manufacturers, during March-May 2020 the domestic sugar industry put an equivalent of an additional 53 million 4-lb bags on the shelf in record time to meet consumer needs and provided a calming effect of a resilient supply chain.

Moreover, sugar is an essential ingredient in the manufacture of most baked goods, snacks, soft drinks, and desserts.⁴ Without reliable supplies of sugar over the past year, it is likely we would have seen several food manufacturers having to idle operations resulting in lost jobs and shortages of staple goods at grocery stores at a time when consumers needed those more than ever, due to the closure of most food service establishments.

Section (i) “critical goods and materials underlying agricultural and food product supply chains.”;

As noted in the Presidential Policy Directive 21 (PPD-21) on Critical Infrastructure Security and Resilience and as outlined recently by the Food and Drug Administration (FDA) and USDA, “... all components of the Food and Agricultural Sector are considered critical infrastructure.”

Sugarcane and sugarbeets are critical for the production of sugar and sugar is a critical natural food ingredient necessary for food manufacturing and for household consumption.⁵ In fact, 68% of packaged foods and beverages purchased in the United States contain added sugars.⁷

Real sugar comes from sugar beets and sugar cane. Sugar occurs naturally in all green plants. Of all plant varieties, sugar beet and sugar cane contain the highest concentrations of sucrose, making them the most efficient way for farmers to grow and harvest sugar. The same pure sugar extracted from sugar cane and sugar beets is identical to the sugar that is found in your pantry.

³ See F.R. Rutter. 1902. “The Sugar Question in the United States,” *Quarterly Journal of Economics*, Vol 17(1): 44-81.

⁴ A reported 74 percent of consumer-packaged foods contain caloric sweeteners (Ng, S.W., M.M. Slining, and B.M Popkin. 2013. “Use of Caloric and non-caloric sweeteners in US consumer packaged foods,” *Journal of the Academy of Nutrition and Dietetics*, Vol. 112(11): 1828-1834.

⁵ See Presidential Policy Directive (February 12, 2013; <https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>).

⁶ See the FDA-USDA MOU (May 20, 2020; <https://www.usda.gov/sites/default/files/documents/mou-between-fda-usda-dpa.pdf>).

⁷ Popkin BM, Hawkes C. Sweetening of the global diet, particularly beverages: patterns, trends, and policy responses. *Lancet Diabetes Endocrinol.* 2016;4:174–86.

Sugar has several functional properties in food and beverages. Sugar plays a crucial role in food preservation, helping to extend the shelf-life of certain food products.^[5] For example, in jams and jellies sugar's ability to attract water prevents microorganisms from multiplying and spoiling food. In breads and baked goods this same quality keeps the bread moist, extending the shelf life thus reducing waste. Sugar can act as a preservative for medicines too and is also used for coating and flavoring medicines to mask their bitterness. There are over 60 different forms of sugar that provide a multitude of functions in the U.S. marketplace from making healthy foods more palatable to coatings on medicines masking their bitterness.

The 2020-2025 Dietary Guidelines for Americans recognize that “added sugars help with preservation; contribute to functional attributes such as viscosity, texture, body, color, and browning capability; and/or help improve the palatability of some nutrient-dense foods.”^[4] For example, sugar is a key component of the Maillard Reaction in products like bread and other nutrient dense foods, improving palatability.⁸ Because of the multiple roles it plays, *there is no single ingredient that can replace sugar's flavor and function*. When sugar is removed, often several ingredients are added.

“Overall, the public health recommendation about ‘added sugars’ must be balanced with the reality that sugar added to food is an important piece of the food science puzzle given its several functionalities in food. Not only can a spoonful of sugar help the medicine go down, but it can help fruit, vegetables and fiber go down as well.” (Goldfein and Slavin, 2015).

Sugar is a key partner in nutrient delivery. Adding a limited amount of sugar to foods that provide important nutrients – like whole-grain cereal, flavored milk, or yogurt – to improve their taste makes sugar a key partner in nutrient delivery.

According to the 2020-2025 Dietary Guidelines, improving palatability of some nutrient-dense foods, helps to meet food group recommendations. “In fact, the nutrient dense choices included in the Health U.S.-Style Dietary Pattern are based on availability in the U.S. food supply and include 17-50 calories from added sugars, or 1.5-2 percent of total calories.” (USDA 2020).

Sugar is a simple carbohydrate, providing glucose that the brain and muscles need to function. Carbohydrates are an integral part of a healthy diet.^[3] Carbohydrates (sugars and starch) are the primary source of energy for the body because they are broken down into glucose. Glucose,

^[5] Davis EA. Functionality of sugars: physicochemical interactions in foods. *American Journal of Clinical Nutrition*. 1995;62(suppl):170S-177S

^[4] U.S. Department of Agriculture and U.S. Department of Health and Human Services. *Dietary Guidelines for Americans, 2020-2025*. 9th Edition. December 2020. Available at [DietaryGuidelines.gov](https://www.dietaryguidelines.gov). Accessed January 14, 2021.

^{8 [1]} Davis EA. Functionality of sugars: physicochemical interactions in foods. *American Journal of Clinical Nutrition*. 1995;62(suppl):170S-177S

^[3] Goldfein KR, Slavin JL. Why Sugar is Added to Food: Food Science 101. *Comprehensive Reviews in Food Science and Food Safety*. 2015;14(5):644-656.

which makes up half of each sugar molecule, is essential to the function of the brain, muscles, and other organs (our brains require around 130 grams of glucose per day).

Sugar is an ingredient that consumers know and recognize-- and during the Pandemic, consumers turned to simple, essential ingredients like sugar for baking and cooking at home to both feed their families and bring some joy as restaurants closed and home cooking replaced food service purchases. Sugar, whether from fruits and vegetables, or extracted and crystallized, has been an important part of human diets throughout time. Consumers recognize sugar on an ingredient list, whether on the side panel of a food product or in a recipe. Sugar is pure and contains no preservatives or additives of any kind. Replacing sugar in food is a difficult and time-consuming process of trial and error. Changing food recipes at the industrial level is also quite expensive requiring product reviews by the appropriate food regulators.^{[7][8]}

Section (iii) “the manufacturing or other capabilities necessary to produce [sugar]”;

American sugar producers are among the world’s most efficient, while adhering to standards and costs for environmental, consumer, and worker protections that are among the highest in the world. American sugar producers can compete against foreign producers on a level playing field, free of government interventions, but cannot compete against foreign sugar subsidies that lead to a world sugar market with dumped surpluses and depressed prices.

The current U.S. sugar policy is a critical response to foreign subsidization and dumping practices that result in a highly volatile global market for sugar. Absent current policy, American jobs in sugar production would be lost to foreign unfair trading practices and the viability and resilience of the U.S. food supply chain would be threatened. As noted at the 2018 Sugar Symposium by an industry representative, “Historically big food companies demanded high-quality sugar but didn’t want to pay for its actual cost of production. Now dependable delivery and a reputation with consumers for having top-end products is of increased importance. I am more worried about availability and security of supply.”⁹

The U.S. sugar industry is among the world’s largest and its producers are among the most competitive (see figure 1 below). The United States is the world’s fifth largest sugar producer, the third largest consumer, and the third largest importer behind China and Indonesia. Despite the high cost of complying with some of the world’s highest labor and environmental standards. The United States has the 20th lowest cost of production, compared to the other 94 sugar-producing countries.¹⁰ Most of those other sugar producers are developing countries with far lower government-imposed labor and environmental standards, regulations and costs. More than half of U.S. sugar production is from sugarbeets and a little less than half is from sugarcane.

^[7] [https://onlinelibrary.wiley.com/doi/full/10.1111/1541-4337.12151#:~:text=Sugar percent20provides percent20bulk percent20which percent20impacts,than percent20sucrose percent20\(Spillane percent202006\).](https://onlinelibrary.wiley.com/doi/full/10.1111/1541-4337.12151#:~:text=Sugar%20provides%20bulk%20which%20impacts,than%20sucrose%20(Spillane%202006).)

^[8] <https://www.foodbusinessnews.net/articles/7433-g-m-o-labeling-alone-may-cost-americans-3-8-billion>

⁹ See article at Agri-pulse (<https://www.agri-pulse.com/articles/11320-availability-and-exemplary-top-grade-service-gaining-higher-priority-in-sugar-market>).

¹⁰ LMC International, “*Sugar Production Costs: Global Benchmarking 2011 Report*,” August 2012, Oxford, England.

Figure 1. U.S. low costs of sugar production

The United States: One of the World's Largest and Lowest-Cost Sugar Producers		
U.S. rank among world sugar markets ^{1/}		
	U.S. Rank	
Production	5	
Consumption	3	
Imports	3	
U.S. cost of production rank among all producers ^{2/}		
	U.S. Rank	# of Producing Countries/Regions
All	20	95
<i>Beet</i>	1	35
<i>Cane</i>	35	61

^{1/} USDA, Foreign Agricultural Service, May 2021. Rankings based on 5-year Olympic Average (2015/16 - 2021/22).
^{2/} LMC International, Sugar Production Costs: Global Benchmarking 2011 Report, August 2012, Oxford, England. "One" ranking = lowest cost.

The U.S. industry has 45 mills, factories, and refineries that process sugarbeets, sugarcane, and raw cane sugar, with that sugar distributed from 91 locations strategically located throughout the United States (see figures 2 and 3 below).

Figure 2. U.S. sugar industry profile

U.S. Sugar Industry Profile		
2020/21		
<i>(Thousand short tons, raw value)</i>		
Beet Sugar Production	5,118	21 beet factories in 9 states^{1/}
Cane Sugar Production	4,181	16 cane mills in 3 states
Total	9,299	37 facilities in 12 states
Sugar consumption	12,230	
TRQ Imports^{2/}	1,673	40 WTO quotaholding countries + FTAs
Mexico Imports	981	Additional U.S. import needs
Cane Sugar Refineries		8 refineries in 6 states
Jobs generated	142,000	22 states^{4/}

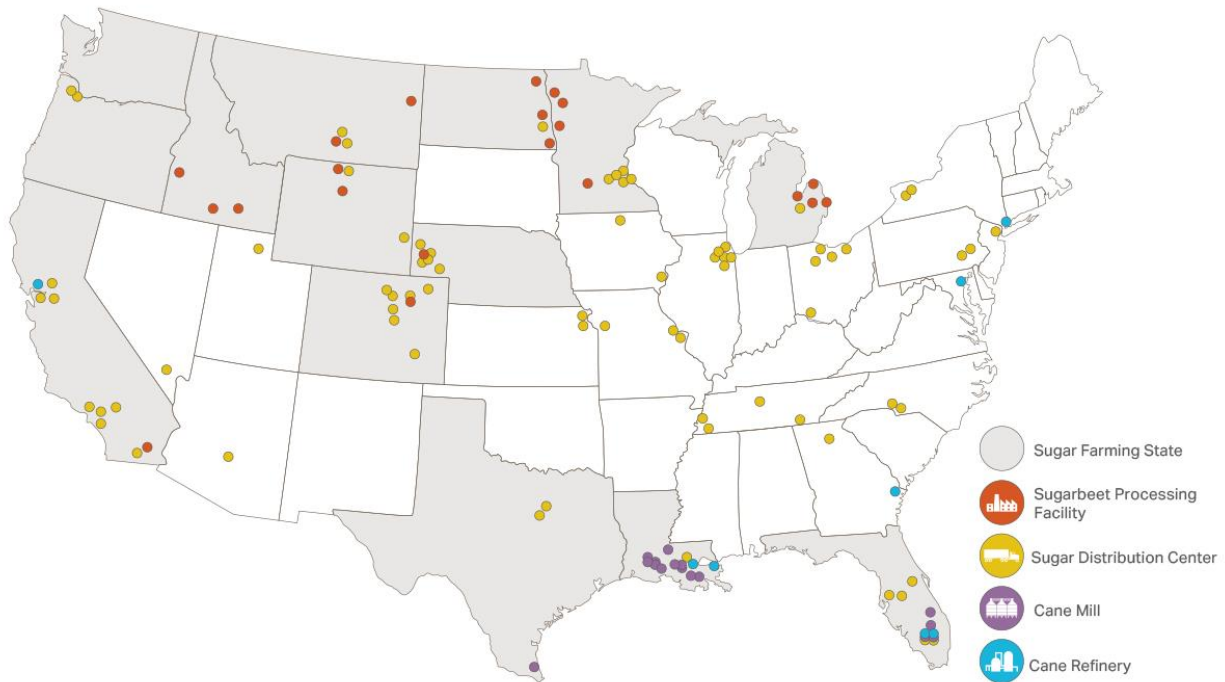
^{1/}Sugarbeets grown in 11 states.
^{2/}Tariff-rate quota imports for domestic food use, actual entries. Total minimum access provided: 1.6 mst.
^{3/}Limited under suspension agreements negotiated between U.S. and Mexican governments in 2014; amended in 2017.
^{4/}LMC International, "The Economic Importance of the Sugar Industry to the U.S. Economy – Jobs and Revenues," Oxford, England, August 2011. Revenues generated: \$20 billion per year.

Data source: USDA, June 2021 WASDE

*The Honorable Tom Vilsack
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The sugar industry is largely structured as farmer-owned cooperatives. The cooperative model has, in some circumstances, been used when corporations choose not to remain in such narrow-margin businesses as sugar. Cooperatives have proven to be effective in eliminating excess costs in the U.S. sugar industry, improving efficiency, and providing growers the opportunity to vertically integrate, govern, and earn more of the food production dollar. Thus, the farmer-owned cooperative business model is a mainstay of the domestic sugar industry.

Figure 3. U.S. sugar industry locations



Beet sugar is produced in 11 states primarily in the north, because cold winter temperatures permit beets to be stored outside with minimal loss of their sucrose content. The outside storage of beets permits beets to be efficiently processed long after their harvest. Beet sugar primarily serves the interior of the country. This source of sugar is located near major food manufacturers, who have facilities close to other agriculture raw materials.

Sugarcane is grown in three states, processed into raw sugar, then refined at eight coastal refineries. Cane sugar primarily serves the heavily populated coastal regions of the country.

Beet and cane refined sugar warehousing and distribution terminals are strategically located throughout the U.S. to meet customer needs on a just-in-time basis. Refined sugar is sensitive to heat and moisture and as food grade product must be kept under seal during shipment by train and truck. Sugar is heavy and transportation is expensive, so moving the product short distances is preferred to reduce costs and maximize efficiencies.

For the past five years, sugarcane and sugarbeet processing capacity has been currently sufficient to provide 65-76 percent of U.S. sugar needs. American cane sugar refiners refine most of the

imported sugar such that more than 90 percent of sugar consumed in the U.S. comes from American farms or American cane refiners. The remaining 10 percent of sugar consumed in the U.S. is imported as refined sugar. At a minimum, the United States has agreed to market access commitments under the World Trade Organization (WTO) or through bilateral/regional free trade agreements (FTAs) to allow approximately 1.4 million metric tons per year of raw and refined sugar to enter the United States on preferential terms, and in most cases duty free. In years when the production of sugarcane or sugarbeets is sufficiently low, the United States will seek additional supplies of imported sugar, first from Mexico as required under the antidumping and countervailing duty suspension agreements and then from other foreign sources. If domestic sugar from U.S. sugarcane or sugar beets exceeds 85 percent of U.S. needs, as it has rarely done in the past, sugarcane and sugarbeet processors would place surplus sugar in storage, at their own expense, until the following production year.

Section (iv) “contingencies that may disrupt, strain, compromise, or eliminate the supply chain [for sugar]”;

There are a number of contingencies that have the potential to disrupt, strain, compromise, or eliminate the current, effective supply chain for domestic sugar. These would include policy changes, demand shocks, and supply shocks.

Policy – Though the U.S. industry is efficient by global standards, long periods of low prices and high risks have resulted in the shuttering of over half of the beet and cane sugar processing facilities since 1985, with third party owners exiting the business and most of the remaining companies purchased by farmers to avoid closure (see figures 4-6 below). The loss of milling and refining capacity from further closures would threaten the domestic industry’s ability to provide a safe and reliable supply of sugar, carefully tailored to the complex needs of U.S. food manufacturers and consumers and would cause further distress in many hard-pressed rural areas.¹¹

¹¹ See how the U.S. sugar industry supports economic opportunities in rural America at <https://sugaralliance.org/u-s-sugar-policy-supports-american-jobs-strong-communities/15898>.

Figure 4. Real sugar price falling over time

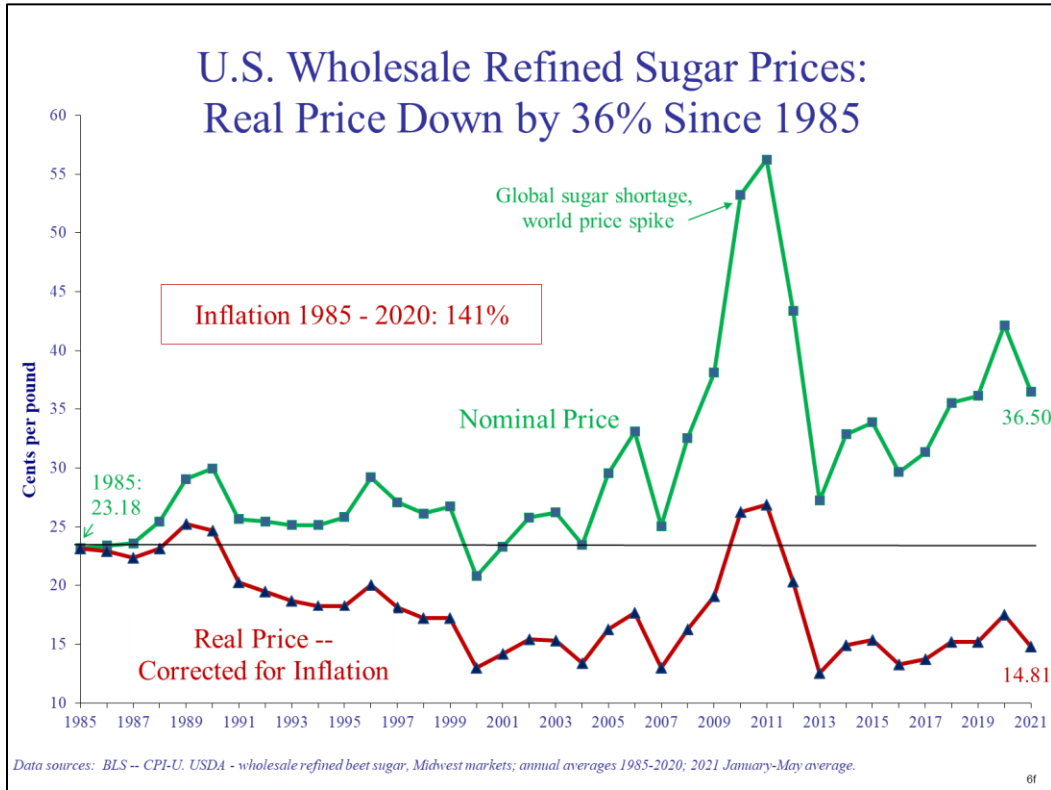


Figure 5. Low prices lead to consolidation

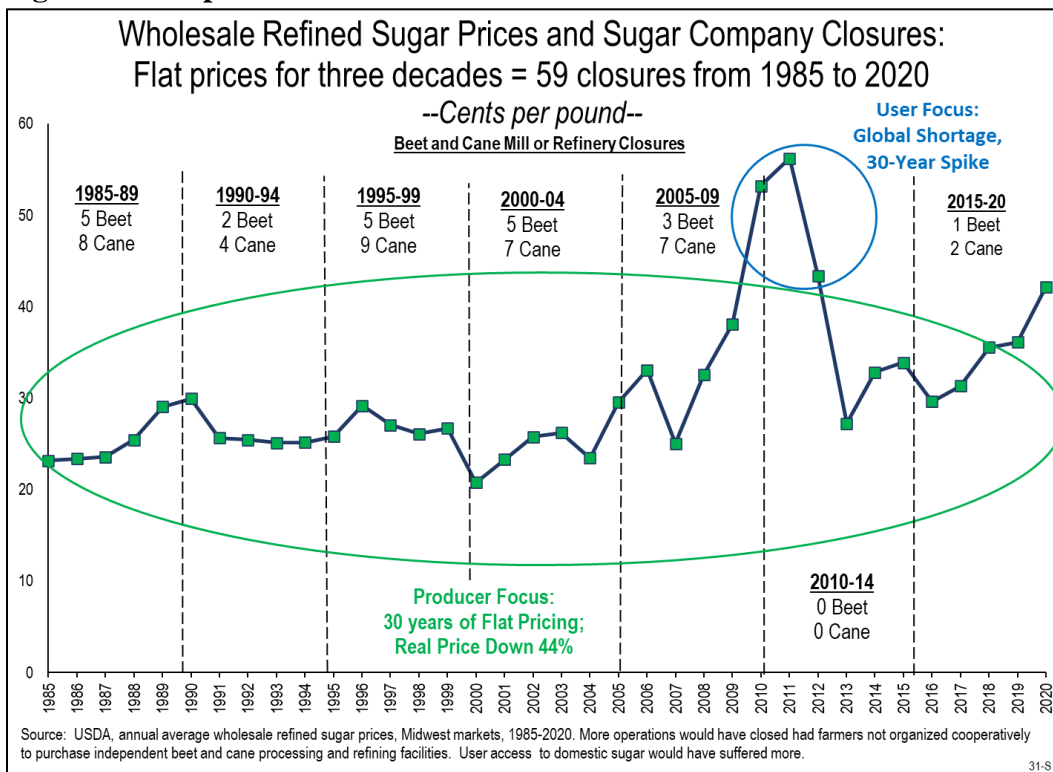
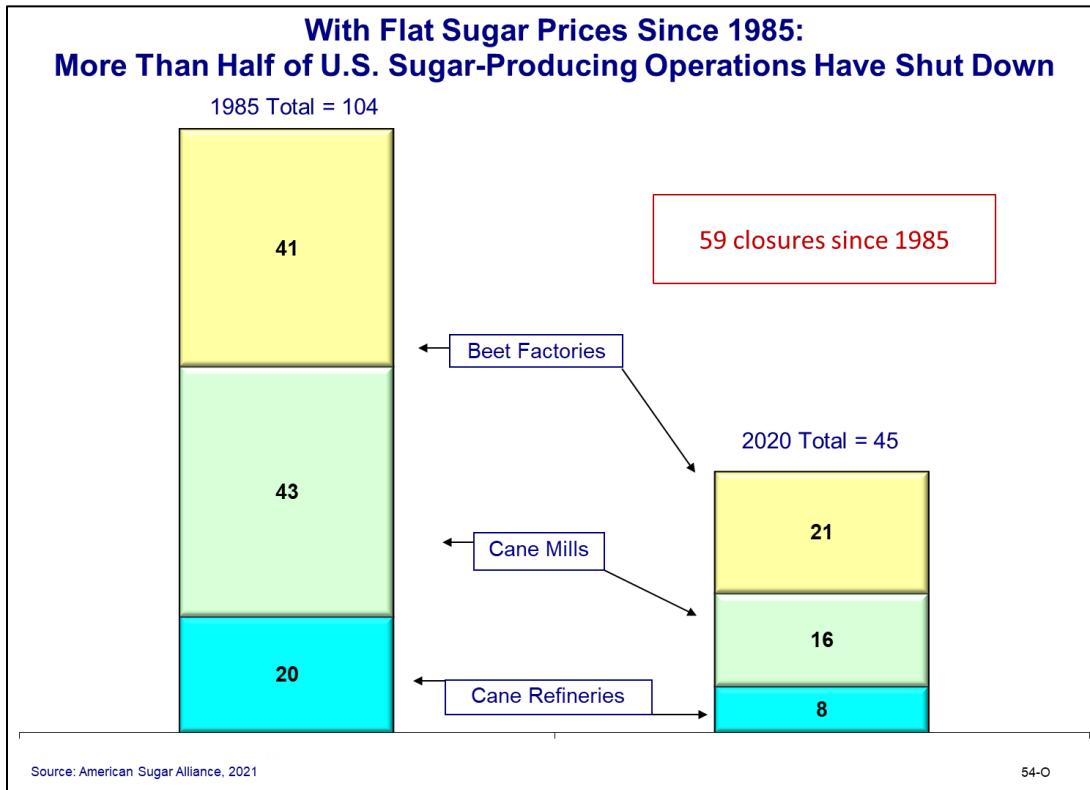


Figure 6. Sector consolidation since 1985



Two main risks exist to maintaining stable prices at levels that allow for orderly production and marketing of sugar domestically and allow investments in the supply chain (from research and development of seed varieties to broadband installation): changes to trade policy and changes to farm policy.

- **Trade Policy:** The current U.S. sugar policy buffers the U.S. market against highly subsidized foreign competition, but some may argue for weakening the existing measures. It is clear that a subsidized and oversupplied global market results in depressed and volatile prices. Due to the economic and political importance of defending sugar production, and consumption, every sugar-producing country's government intervenes in some aspect of its sugar industry (price, production, consumption, imports, and exports) to provide economic stability and profitability to sustain their domestic industry. Surplus production is sold (dumped) on the world market to prevent oversupply in their own market and to clear storage for the next crop, regardless of the world price. This results in world prices below the world average cost of production, posing a direct threat to more efficient producers in the United States and elsewhere (see figures 7-8 below).

Figure 7. World raw sugar prices are lower than costs of production

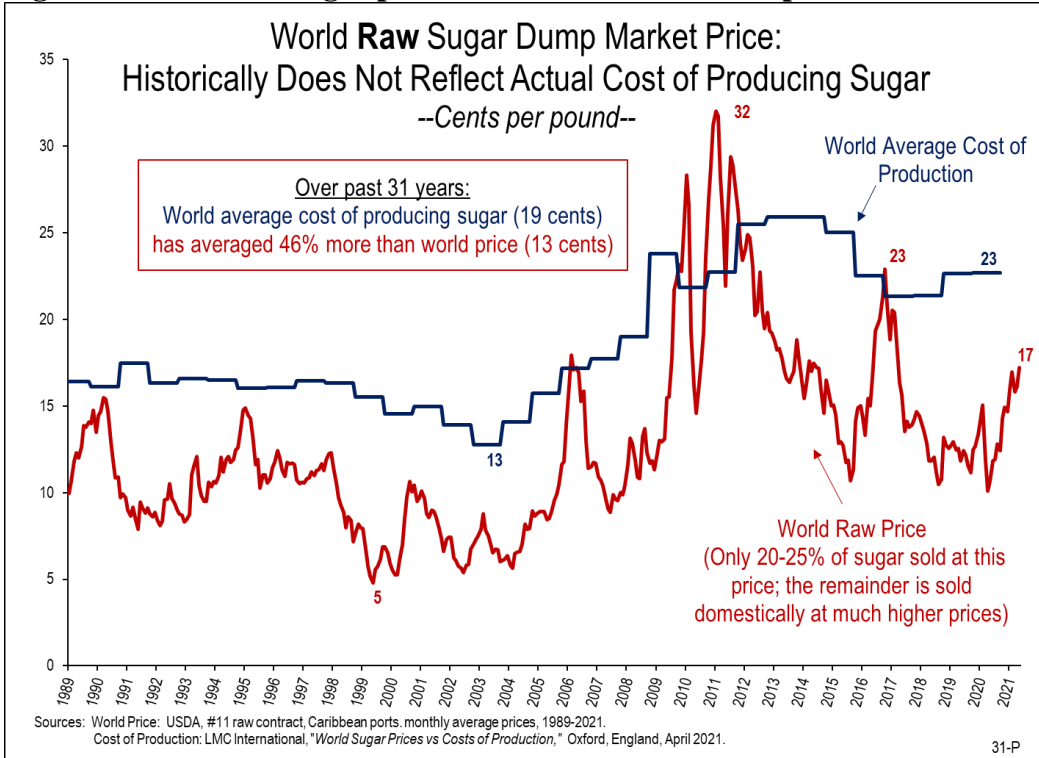
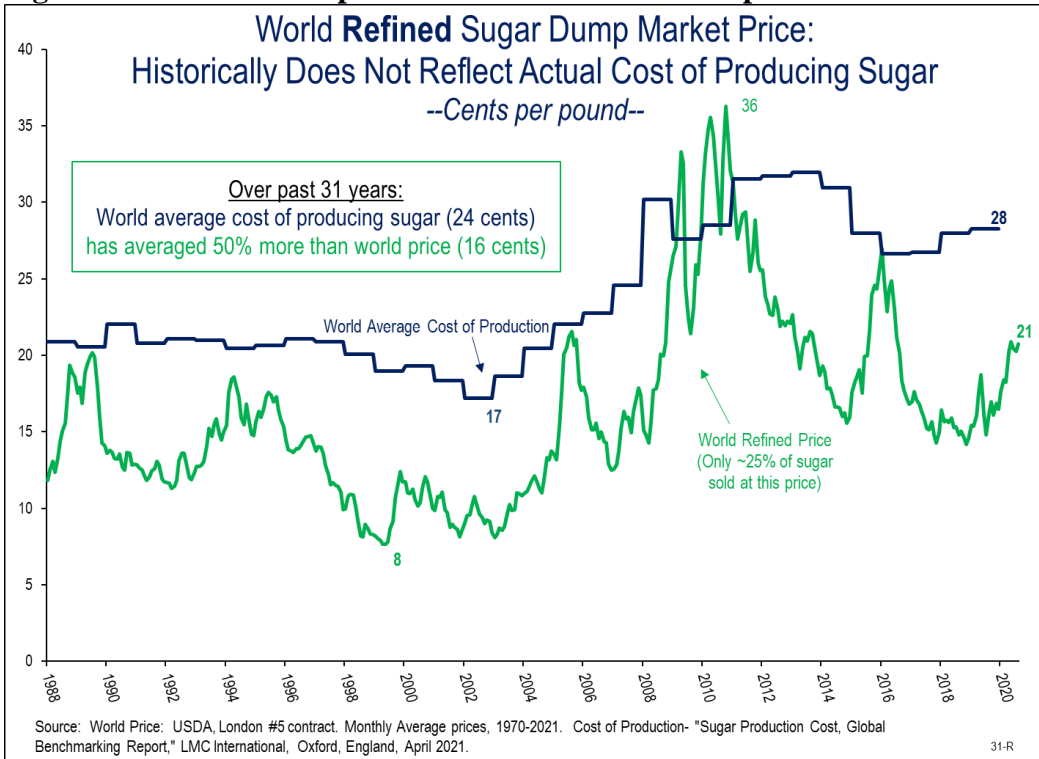
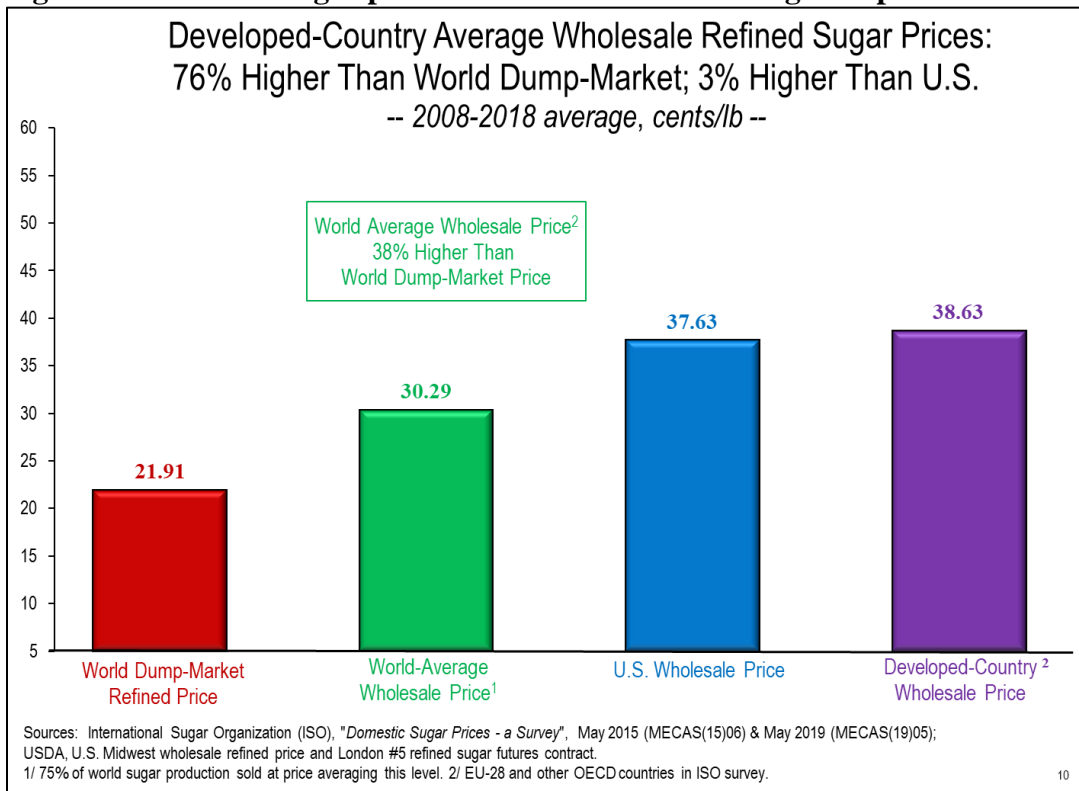


Figure 8. World refined prices are lower than costs of production



Subsidized and dumped sugar has driven out smaller sugar producers around the world, some who were once suppliers to the U.S. market. The International Sugar Organization (ISO) surveyed 78 countries to learn actual wholesale prices – the price producers in those countries receive for their sugar. The ISO documents that, globally, actual wholesale refined sugar prices have averaged 38 percent higher than the world price over the past decade. Prices in other developed countries have averaged 76 percent higher than the world market price, and 3 percent higher than U.S. prices (see figure 9 below).¹²

Figure 9. Wholesale sugar prices within countries exceed global price



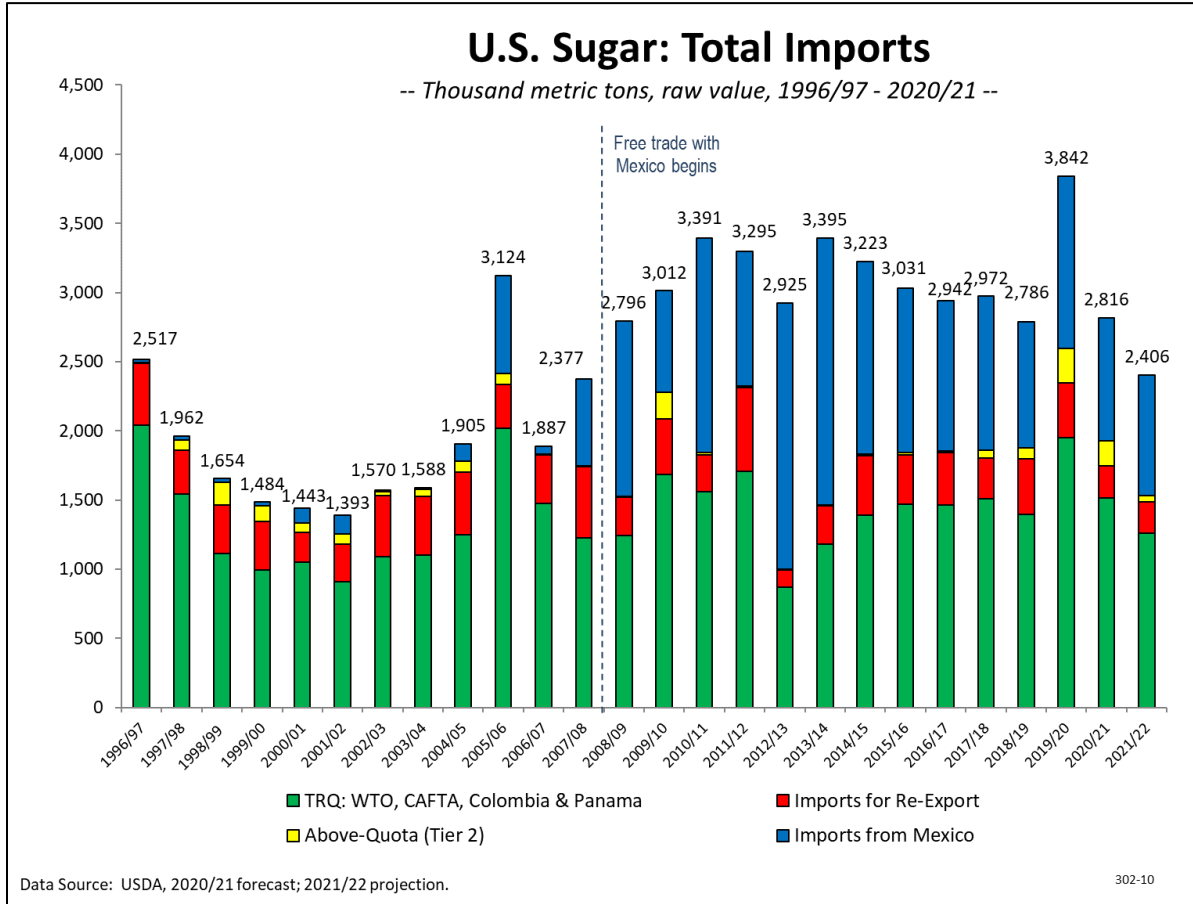
Though the U.S. industry is efficient by global standards, long periods of low prices have resulted in the shuttering of over half of the beet and cane sugar processing facilities since 1985, with most of the remaining companies purchased by farmers to avoid closure. There is too much risk and not enough returns for third party investors to own sugar processing assets.

Concessions the United States has made in the WTO and in a number of bilateral/regional FTAs ensure that the U.S. is, and will remain, a net importer of sugar. These commitments, along with a growing population will produce a higher of rate of overall demand to continue to outpace production. This has made the United States the world's third largest sugar

¹² International Sugar Organization, "Domestic Sugar Prices - a Survey," MECAS (19)05, May 2019.

importer (behind China and Indonesia), importing some 25-30 percent of U.S. needs in a given year (see figure 10 below).

Figure 10. U.S. sugar imports



Our import commitments to 40 countries under the WTO, plus in FTAs with Mexico, Canada, the CAFTA-DR countries (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Dominican Republic), Colombia, Peru, and Panama, and have grown over time (see 11 below).

Further opening the U.S. market to the global market for sugar would likely drive additional U.S. producers out of business. For example, Mexico’s open access to the U.S. market provided under NAFTA led to the dumping of subsidized Mexican sugar on the U.S. market in 2013, depressing U.S. prices, costing U.S. farmers approximately \$4 billion.¹³

¹³ A successful anti-dumping and countervailing duty case in 2014 led to the current regime of Suspension Agreements with Mexico, that still guarantees duty-free access under certain conditions. See the U.S. Department of Commerce fact sheet at <https://www.commerce.gov/news/fact-sheets/2017/07/final-amendments-mexican-sugar-suspension-agreements-fact-sheet>.

Figure 11. U.S. sugar market concessions as of 2020/21

	Minimum Import Amount (or Recent Average)		
	WTO	FTAs	Total
		<i>Metric tons, raw value (MTRV)</i>	
WTO (41 countries, including below)	1,139,195		1,139,195
NAFTA/USMCA			
Mexico (recent average) ¹	--	1,089,666	1,089,666
Canada	10,300	9,600	19,900
CAFTA/DR²	311,700	155,780	467,480
Colombia	25,273	56,750	82,023
Peru³	43,175	13,160	56,335
Panama⁴	30,538	7,650	38,188
Total (WTO + FTA minimums + Mexico actual)	1,139,195	FTAs (excl. MX): 226,320	2,892,787

¹ Suspension Agreements (SAs) signed December 2014, revised June 2017, limit imports from Mexico to U.S. import needs above WTO and FTA quotas. Mexico FTA total is 3-year average actual entries (2017/18 - 2019/20). The SAs are subject to annual administrative reviews and to sunset reviews every five years; next sunset review in 2024.

² Central American Free Trade Agreement/Dominican Republic access for CY 2021; includes 2,000 tons of specialty sugars for Costa Rica. CAFTA countries' WTO access included in WTO total. Other CAFTA/DR countries: Guatemala, El Salvador, Honduras, Nicaragua, Dominican Republic.

³ Peru FTA access is 11,160 MTRV, subject to net exporter status (not yet achieved) and 2,000 MTRV of specialty sugars not subject to net exporter status.

⁴ Panama FTA specifies 6,600 tons of access must be raw; the remainder raw, refined or products. (CAFTA, Colombia and Peru FTAs do not specify raw or refined.)

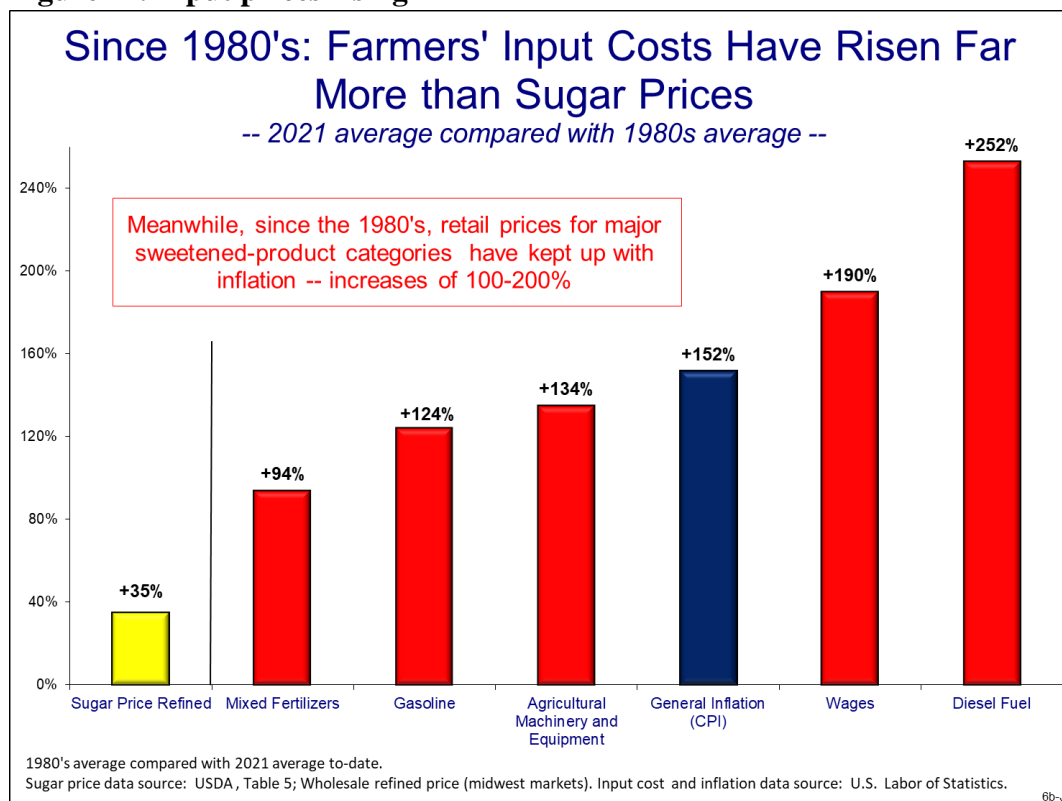
Note: TRQs set in the FTAs for CAFTA/DR, Peru, Colombia, and Panama are subject to net-exporter provisions (exports, excluding those to the U.S., minus imports). This requirement may limit access under these TRQs for some of these countries in some years. For 2021, the DR, Panama and Peru were determined not to have met the trade surplus provision and are unable to utilize their respective raw/refined TRQs (raw TRQ in the case of Panama).

Moreover, there are additional challenges of moving foreign refined sugar to the U.S. market, such as questionable product quality (resulting from a host of issues, such as packaging, polarity, foreign materials, heat and humidity in transit). There are significantly higher handling and transportation costs for importing global sugar, and at times, logistical obstacles. For example, the pandemic-induced container shortage has significantly hampered India's ability to export sugar this year. In Brazil, the world's largest sugar exporter, ships have experienced lengthy delays (3+ weeks) and associated demurrage costs waiting to load sugar due to shipping challenges exacerbated by both the pandemic and China's voracious demand for soybeans. Looking back more than a decade, when droughts hit the four major exporters (Brazil, India, Thailand, and Australia) at the same time in 2010, sugar prices shot up, leading these countries to concentrate on delivering shipments to nearby markets to save freight costs.

- Farm Policy: Domestically, the current sugar program, as detailed in the Farm Bill, provides a safety net for sugarbeet and sugarcane farmers by providing nonrecourse loans to assist with orderly marketing throughout the year. That maintains a steady flow of sugar supplies to consumers and industrial food manufacturers without requiring wholesale intermediaries or industrial facilities to invest in, construct, and maintain costly storage facilities. Legislative proposals weakening USDA's sugar program administration could jeopardize supply-chain resiliency by causing additional consolidation and contraction. Less geographic dispersion of the industry implies greater vulnerability to regional weather anomalies.

Rising input costs for sugar production (equipment, fertilizer, fuel, seed, labor, etc.) also put at stress the supply chains for sugar production and distribution (see figure 12). For example, labor availability is a perennial issue for sugarbeet and sugarcane producers at harvest. Because the beet and cane sugar content is best maintained for optimal extraction though speedy harvests, the demand for labor during those periods often exceeds local availability.

Figure 12. Input prices rising



- Other policy issues – In addition to changes in trade or farm policy putting the resilience of the sugar supply chain at risk, there are myriad other policy changes that could threaten the supply of safe, reliable, and quality sugar to Americans.
 - Crop insurance is an essential risk management tool for growers and is usually a requirement by their bankers. Historically, crop insurance has served beet growers with minimal but adequate coverage. Purchase of buy-up policies by the cane sector has been more limited. However, RMA has always worked well with our growers and we appreciate their attention to our concerns.¹⁴ And with continued improvements to both the sugarcane and sugarbeet policies as well as new products offering hurricane coverage there has been continued growth in policies and coverage for the sector. For example, in 2019, a year with adverse weather for beet as well as cane, total premiums for sugarbeets totaled \$53.6 million and for sugarcane \$6.1 million. Indemnities totaled \$172.5 million for beets and \$4.8 million for cane.
 - Continued public and private sector research and development is needed to provide continued advances in sugarcane and sugarbeet plant genetics that are more productive and more resilient to adverse growing conditions. Over the past 20 years, sugar growers have produced 16 percent more sugar on 11 percent less land: sugarbeet yields are up 42 percent and sugarcane yields are up 12 percent.

¹⁴ See for example <https://www.rma.usda.gov/News-Room/Press/National-News-Archive/2018-News/2018-News/RMA-18-074-Crop-Insurance-for-Sugar-Beets-Sees-Improvements> and <https://www.rma.usda.gov/en/Topics/Hurricane-Insurance-Protection-Wind-Index>.

- Similarly, continued access to plant protectants and other production inputs such as improved fertilizers will continue to remain a priority for growers who continually improve productivity to accommodate falling real commodity prices. Use of science-based rules rather than the precautionary principle to maintain access to those inputs is essential.
- Changes to tax policy without safeguards for farm ownership may interfere with the orderly succession of farm ownership from one generation to the next and could be disastrous for U.S. sugarcane and sugarbeet growers. Recent tax proposals have involved re-examining capital gains taxes and the treatment of stepped-up basis at the time of an owner's death. Changes to long-standing tax policies that would make it more difficult for family members to continue efficient farm operations or force them to sell off parts of the farm to satisfy tax liabilities would be particularly difficult for capital-intensive operations (such as beet or cane) to survive long without significant consolidation. Farm operations have often been in a family for generations and built up to scale over time. Efficiency is driven by economies of scale and our growers achieved efficiencies that have allowed them to remain in business. Changes to tax policy that would eliminate the efficiencies of scale would be disastrous to our industry and would be hard to reverse. Such threats underscore the importance of maintaining a broad sugarbeet and sugarcane production base as an important component of a resilient U.S. supply chain.

Shocks to Demand and Supply – It is clear that an important aspect of a resilient food and agricultural supply chain is the ability to adjust to rapid changes in demand or supply. As weather shocks becomes more frequent, the inelastic nature of demand for food suggests that, absent a resilient supply chain, year-to-year supply and price variations could be severe.

- For example, in 2019, severe weather disrupted sugarbeet production in several U.S. regions and in Canada, as well as sugarcane production in Louisiana and Mexico. Several sugar marketing companies were forced to invoke *force majeure* because of their inability to fulfill all their sales contracts. Despite the 850,000-ton, or 10 percent, decline in domestic sugar production in 2019/20, the U.S. sugar market remained stable. The United States was able to replace that lost supply by increasing its imports of raw and refined sugar. During that marketing year no food manufacturing company was required to idle production for lack of sugar availability.
- Moreover, the U.S. sugar industry was able to ensure adequate retail supplies as consumers shifted their demand away from food-service establishments. To meet those challenges and to provide sufficient supplies to food manufacturers, during March-May 2020 the domestic sugar industry put an equivalent of an additional 53 million 4-lb bags on the shelf in record time to meet consumer needs and provided a calming effect of a resilient supply chain.

Section (v) “the resilience and capacity of American [sugar] manufacturing supply chains and the industrial and agricultural base of the United States to support national security [as it relates to nutritional security] in the event that contingencies occur”;

As noted in E.O. 14017, resilient supply chains, like those around our domestic sugar supplies, “...are secure and diverse—facilitating domestic production, a range of supply, built-in supply redundancies, adequate stockpiles, safe and secure digital networks, and a world-class American manufacturing base and workforce. Moreover, close cooperation on resilient supply chains with allies and partners who share our values will foster collective economic and national security and strengthen the capacity to respond to international disasters and emergencies...”

The supply chain for sugar production and distribution in the United States has remained strong, despite the closure of more than half of all sugar processing operations since the 1980’s. Rising costs and declining real prices led to the loss of large portions of American sugar production and manufacturing but the remaining, more consolidated, industry has continued to invest to sustain efficiency and flexibility.

As noted earlier, the sugar industry is largely structured as farmer-owned cooperatives. The cooperative model has, in some circumstances, been used when corporations choose not to remain in such narrow-margin businesses as sugar. Cooperatives have proven to be effective in eliminating excess costs in the U.S. sugar industry, improving efficiency, and providing growers the opportunity to vertically integrate, govern, and earn more of the food production dollar. Thus, the farmer-owned cooperative business model is a mainstay of the domestic sugar industry.

Sec. (v) part (A) “manufacturing or other needed capacities of the United States, including the ability to modernize to meet future needs”;

Though U.S. sugar producers and farmer-owned cooperatives remain under some economic duress, they have continued to make investments to survive and respond to supply and demand challenges. For example, sugarbeet processors have built or expanded refined storage facilities in major demand centers, such as Chicago, to better supply consumers and industrial users in the Midwest. Following the disastrous railcar shortages in the Upper Midwest in 2014/15, which severely hampered the orderly marketing of agricultural commodities, sugarbeet processors expanded storage capacity in demand centers to help mitigate future transportation bottlenecks.

Similarly, continued investments by the sugarcane refining sector in Louisiana and Florida have expanded domestic refining capacity, lowering the need to import refined sugar.

Sec. (v) part (E) “exclusive or dominant supply of critical goods and materials and other essential goods and materials by nations that are likely to become unfriendly or unstable”;

As mentioned, the U.S. sugarbeet and sugarcane processing industry has the capacity to meet approximately 75 percent of U.S. demands, with the remainder of that demand being met by our trading partners, with most of the imported raw sugar being refined by U.S. refineries. The United States provides preferential access in commitments made under the WTO and various bilateral/regional FTAs. Our largest foreign supplier is Mexico.

Mexican access to the U.S. market is determined by the antidumping and countervailing duty Suspension Agreements (SAs) negotiated by the U.S. and Mexican governments in 2014 and revised in 2017. The SAs were in response to the damage done to domestic producers when Mexico unleashed a flood of dumped and subsidized sugar into the U.S. market in 2013. As a result, prices collapsed, seriously injuring American farmers and their refiners, causing them to lose an estimated \$4 billion total from 2013 to 2014 – and for the first time in over a decade U.S. sugar policy incurred a budgetary cost (\$259 million) to the detriment of U.S. taxpayers.

To combat these unfair trade practices and restore balance and stability, U.S. sugar producers filed anti-dumping (AD) and countervailing duty (CVD) cases in 2014. The U.S. International Trade Commission ruled unanimously that Mexico had injured the U.S. sugar industry.¹⁵ The U.S. Department of Commerce (DOC) determined that combined duties of up to 80 percent were justified and would be needed to eliminate the injurious effects of Mexican dumping and subsidization. Such duties would almost certainly have stopped all, or nearly all, imports of sugar from Mexico. This was not the goal of the U.S. sugar industry. The goal was to stop dumped and subsidized sugar from threatening the viability of our industry and placing a burden on U.S. taxpayers. Therefore, in lieu of AD and CVD duties, the U.S. and Mexican governments negotiated the SAs in December 2014 to attempt to eliminate injury and, at the same time, allow the Mexicans substantial access to the U.S. sugar market.

Unfortunately, these SAs did not work as intended and proved totally ineffective. They neither eliminated dumping nor removed the injury to our producers, resulting in economic damages to the sugar industry of an additional \$2-2.5 billion (which totals \$4-4.5 billion in reduced income).

This situation was brought under control only when the DOC successfully completed a revision of these SAs, which came into effect on October 1, 2017. Since then, the SAs appear to have been effective in ending Mexican damage to the U.S. sugar industry.

¹⁵ See “Sugar from Mexico Injures U.S. Industry,” at U.S. International Trade Commission, News Release 15-098 (October 20, 2015; https://www.usitc.gov/press_room/news_release/2015/er102011513.htm).

Sec. (v) part (F) “substitutes or alternative sources”;

The sweetener sector is very competitive. As mentioned, the U.S. sugar sector is a highly dispersed and competitive marketplace characterized by roughly 50 percent domestic beet sugar supplies and 50 percent domestic or imported cane sugar supplies. Other sweetener supplies include caloric sweeteners such as honey or high fructose corn syrup and non-caloric artificial sweeteners such as aspartame. None have the multiple properties that sucrose provides. Changes in consumer preferences will drive longer-term trends; and replacing sugar with current alternative sources in the event of a short-term supply-chain disruption is not likely. If we consider the pandemic, consumer demands required swift movement of supplies from food service to retail grocery outlets. Such a movement was accommodated by the resilient sugar supply chain. In some cases, if industrial users wished to move to another sweetener, that would have required lengthy experimentation with ingredient lists and federal food product approval -- not the type of the swift response required during a supply chain disruption.

Sec. (v) part (G) “current domestic education and manufacturing workforce skills for the relevant sector and identified gaps, opportunities, and potential best practices in meeting future workforce needs for the relevant sector”;

The sugar industry provides well-paying full-time jobs for many communities supporting small independent businesses in the United States, often in rural areas. Investments in automation at beet processors and cane mills and refineries have helped the sector build supply-chain resilience.

The most recent analysis estimates that the U.S. sugar industry generates 142,000 jobs across the country and U.S. sugar companies pay fair wages and offer good benefits. Importantly, the sugar industry provides opportunities in communities where jobs can otherwise be limited. Sugar companies take pride in fostering a skilled workforce. Whether it is partnering with community colleges to develop educational opportunities or providing tuition reimbursement, additional training and technical classes, the sugar industry is continually encouraging growth and career advancement. The U.S. sugar industry is also strongly supported by its largely unionized workforce. In fact, 100 percent of beet sugar processors employ union labor, as do most cane refineries.

Sec. (v) part (H) “the need for research and development capacity to sustain leadership in the development of critical goods and materials and other essential goods and materials, as identified in subsections (c)(i) and (c)(ii) of this section”;

Continued public and private sector research and development is needed to provide continued advances in plant genetics. Both beet and cane producers benefit from the USDA investments in the research stations located in:

- Cane: Canal Point, Florida; ARS Sugarcane Research Unit in Houma, Louisiana
- Beets: ARS stations in Fargo, North Dakota; Fort Collins, Colorado; East Lansing, Michigan Kimberly, Idaho, Sidney, Montana Beltsville, Maryland, Pullman, Washington, and Wyndmoor, Pennsylvania. Additional research is conducted by nine land grant universities, eight sugar companies and three seed companies. That

research will improve the resilience of the supply chain for sugar in the longer run by making U.S. beet and cane crops less vulnerable to severe weather and disease.¹⁶

Section (ix) “policy recommendations for ensuring a resilient supply chain for the sector, including reshoring supply chains and developing domestic supplies, enhancing access to financing, expanding research and development to address risks posed by climate change”;

Last year posed enormous challenges to the U.S. food and agricultural system. The disruptive impacts of the COVID-19 pandemic on the U.S. agricultural system were broad and varied. Markets — food, commodity, labor, energy — were jolted by global, national, and regional shutdowns, slowdowns, and overall uncertainty. Those shocks to the U.S. and global economies affected both the supply and demand for food in the U.S. and led to short-term, localized shortages in the U.S.¹⁷ However, as USDA’s 97th annual Agricultural Outlook Forum highlighted this February, U.S. agriculture was buttressed in this challenging period by innovation, which allowed the supply chain for food and agriculture to be resilient.

Consumer food purchasing switched almost overnight with retail spending growing by more than 50 percent in March 2020, while hotel and restaurant spending fell by more than 60 percent as many states imposed emergency measures to control the pandemic.¹⁸ In addition, food manufacturers were challenged with receiving ample supplies of product to process as well as safeguarding their workers and ensuring sufficient labor supply to remain open. By and large, with few exceptions, the resiliency of the U.S. food supply chain ensured adequate food supplies for Americans throughout 2020. However, there were instances when that supply chain was strained, and the federal government had to step in and ensure the movement of food to Americans that either had little access to those food products or were having difficulties accommodating the rise in consumer food prices we saw at this time. But the bottom line is that no food manufacturer had to shut down due to a lack of sugar supply.

We can see from this graphic provided by the USDA at the Agricultural Outlook Forum (see graph below (from <https://www.usda.gov/sites/default/files/documents/2021-meyer-slides.pdf>) that as producers received lower amounts for their products in the first months of the pandemic, consumer prices were surging due to the stress on the supply chain.

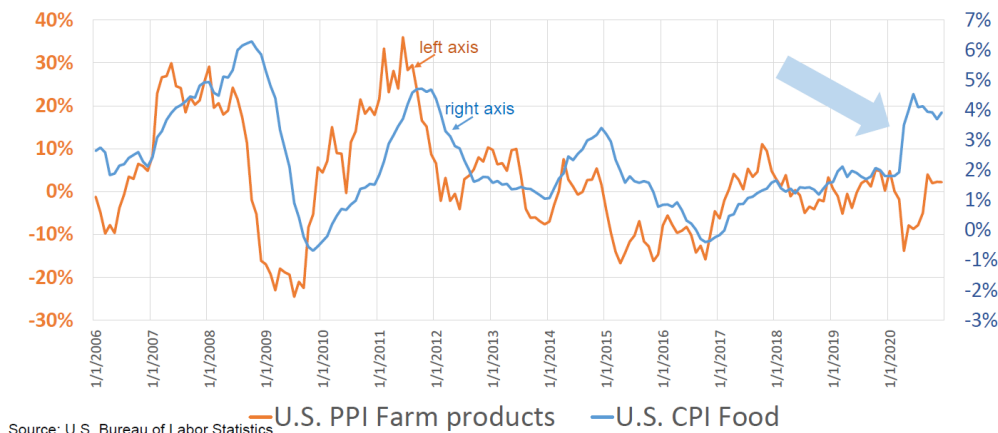
¹⁶ See examples at <https://sugaralliance.org/research-in-louisiana-supports-sustainable-sugarcane-production/37544>.

¹⁷ <https://www.usda.gov/media/blog/2020/09/24/americas-farmers-resilient-throughout-covid-pandemic>

¹⁸ See J. Balagtas and J. Cooper. 2021. “The Impact of Coronavirus COVID-19 on U.S. Meat and Livestock Markets,” USDA Office of the Chief Economist, working paper (March: <https://www.usda.gov/sites/default/files/documents/covid-impact-livestock-markets.pdf>).

COVID-19 drove wedge between farm & consumer prices

percent change from one year ago



The supply chain for sugar, like many throughout the food supply chain, was also stressed by the pandemic and change in consumer demands last year. In addition to the stress on the sugar supply system due to the pandemic, the domestic sugar industry was ending a disastrous 2019 crop for many parts of the industry, due to cold wet weather in the Northern states and dry weather in Louisiana and Texas. Severe weather caused U.S. beet sugar production in 2019/20 to drop 12 percent from the previous year while Louisianan and Mexican cane sugar production each dropped by 18 percent. Meanwhile, the pandemic threatened sugar processing, transportation, and overall demand. However, because of the strong sugar policy enacted by Congress and administered by USDA, USTR, and DOC, the divergence in the PPI and CPI experienced by most of the U.S. food and agricultural sector was not as apparent for the sugar sector.

Lessons Learned --- ensuring a resilient supply chain for U.S. sugar

1. The current trade policy for sugar is working.

The U.S. sugar industry is a major player in the world sugar market. The United States is the world's fifth largest sugar-producing country and is among the most efficient. The U.S. is the 20th lowest cost among the 95 largest sugar-producing nations. Most of these are developing countries with far lower government-imposed costs for worker, consumer, and environmental protections. U.S. beet sugar producers, mostly in northern-tier states, have been called the lowest-cost beet producers in the world.¹⁹

The United States is also the world's third largest sugar-consuming country and the third largest sugar importer behind China and Indonesia, providing guaranteed, largely duty-free, access to 41 countries. This makes the United States one of the world's most open markets to foreign sugar. The amount of preferential access is prescribed under the World Trade Organization and other trade agreements to which the United States is a party.

¹⁹ LMC International, "Sugar & HFCS Production Costs: Global Benchmarking," Oxford, England, August 2011.

Since, U.S. sugar producers are among the lowest cost in the world, one might ask why the industry requires a sugar policy at all. To mitigate the potential for globally subsidized sugar to be dumped on the U.S. market, sugar policy has evolved to provide substantial access to trading partners per agreed upon quantities at the higher U.S. price. Similarly, Mexico, has agreed to limit exports to the United States albeit at the higher U.S. price, through negotiations with the Department of Commerce to avoid anti-dumping duties levied against Mexican sugar exports by the United States in 2014 and amended in 2017.

Researchers at Texas A&M University’s Agricultural and Food Policy Center have written: “Policymakers in the United States have long recognized that the world sugar market is heavily distorted by foreign subsidies and market manipulations and have provided U.S. sugar farmers with some form of safety net for more than 200 years. Major producers and exporters of sugar do not respond to the signals of the world market but rather to the policies of their governments that enable them to export sugar below their costs of production and their own domestic prices.”²⁰

A published study by University of Tennessee researchers has noted: “The U.S. sugar program protects domestic sugar producers from world sugar prices because the world sugar market consists of heavily subsidized sugar from countries such as India and Brazil. The world sugar market carries the moniker of being the most distorted commodity market because nearly all sugar-exporting countries subsidize and protect their sugar industries.”²¹

- 2. Current farm policy for sugar is working.** U.S. beet and cane sugar producers process their crops into sugar much faster than the market can absorb it. Producers have to store sugar for many months at their cost until their customers need it. The current sugar policy provides nonrecourse loan to sugar producers so that they can manage stocks, market their crop throughout the year, and benefit from a needed economic safety net. U.S. sugar policy requires close monitoring by the USDA to ensure that supplies and demand remain in balance, targeting a range of stocks to use from 13.5 percent to 15.5 percent to avoid government costs. When supplies or demand move outside of normal patterns, interventions can occur. With ready supplies generally available from our main sugar trading partner, Mexico, the close cooperation between the USDA, the DOC, and Mexico ensures that the appropriate quantity of raw and refined sugar from that country is available for relatively quick purchase and delivery should the market require it.

The sugar provisions in the farm bill are designed to provide a safety net for farmers. Legislative threats to undermine the policy would accelerate the consolidation or collapse of

²⁰ J. Outlaw and J. Richardson. 2016. “*Analysis of the Coalition for Sugar Reform Amendments to U.S. Sugar Policy: Potential Effect on Policy and Industry*,” Agricultural and Food Policy Center, Texas A&M University (May).

²¹ Carlos J. O. Trejo-Pech, Karen L. DeLong, Dayton M. Lambert, and Vasileios Siokos, University of Tennessee, “*The impact of US sugar prices on the financial performance of US sugar-using firms*,” Agricultural and Food Economics, August 2020.

*The Honorable Tom Vilsack
Administrator Bruce Summers
June 18, 2021*

the domestic industry putting consumers at higher risks. Rising costs of goods (inputs) and services (labor) and flat sugar prices continue to threaten production over time. To that end, we are experiencing greater costs to adopt greater sustainability/climate solutions to meet challenging growing conditions, but also to meet consumer expectations. Proper administration of the US sugar policy is key to balancing the domestic market.

Conclusion

Thank you for reviewing and strengthening the supply chains for critical and essential goods and infrastructure needed for national food security. We understand that you will be considering these public comments and information as you determine and develop the Department's response to President Biden's Executive Order 14017. We trust that the attached information from the American Sugar Alliance regarding the current supply chain for sugar production and distribution to the American people and the U.S. food manufacturing sector will be helpful in that effort. Again, it bears mentioning that thousands of U.S. sugarbeet and sugarcane farmers and sugar industry workers, as well as millions of consumers, rely on USDA to maintain the strength and certainty of the U.S. sugar program and to collaborate with USTR and DOC to maintain the integrity of the system governing U.S. sugar imports.

Sincerely,

Jack Roney
Director of Economics and Policy Analysis
American Sugar Alliance