



United States  
Department  
of Agriculture

AES-87  
June 2015



A Report from the Economic Research Service

[www.ers.usda.gov](http://www.ers.usda.gov)

# U.S.-Cuba Agricultural Trade: Past, Present, and Possible Future

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## Abstract

Establishment of a more normal economic relationship with Cuba has the potential to foster additional growth in U.S.-Cuba agricultural trade. Prior to the Cuban Revolution of 1959, bilateral agricultural trade featured large volumes of Cuban sugar and smaller volumes of molasses, tobacco, and pineapple from Cuba and rice, lard, dried beans, wheat, and wheat flour from the United States. In 2000, the U.S. economic embargo on Cuba was loosened to allow for U.S. exports of agricultural products and medicine. As a result, the United States soon became Cuba's leading supplier of agricultural imports. The remaining prohibitions on issuing credit to Cuba, however, give other exporting countries a competitive advantage in the Cuban market, and the United States slipped to being the second leading supplier in 2013 and the third leading supplier in 2014. A more normal economic relationship between the two countries would allow Cuba to resume exporting agricultural products to the United States, while U.S. agricultural exporters would be able to develop commercial ties in Cuba that approximate their business relationships in other parts of the world.

**Keywords:** Cuba, United States, agricultural trade, embargo, normal trade relations.

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Approved by USDA's  
World Agricultural  
Outlook Board

## Acknowledgments

We are thankful for comments and suggestions received from a number of individuals, including Erik Dohlman, Mark Jekanowski, and Andrew Muhammad (USDA, Economic Research Service); and Mike Dwyer and Brian Healy (USDA, Foreign Agricultural Service). Andre Bradley (USDA, FAS), Jonathan Coleman (U.S. International Trade Commission), William Liefert (USDA, ERS), and William Messina (University of Florida) provided valuable peer reviews, and Kristen Stein (Global Trade Information Services) facilitated access to the trade statistics of Cuba's trading partners. Special thanks to Dale Simms, Cynthia A. Ray, and Curtia Taylor (ERS) for their expert editing and design of the report.

## Introduction

Establishment of a more normal economic relationship with Cuba offers the potential to generate further growth in U.S.-Cuba trade; to foster greater productivity in the Cuban economy; to increase demand for agricultural imports among Cuban consumers, foodservice providers, and food manufacturers; and to allow for the resumption of U.S. agricultural imports from Cuba. Over the past 6 months, the United States and Cuba have taken several small steps toward normalizing their economic relationship. In December 2014, the United States announced that it would begin discussions to re-establish diplomatic relations with Cuba and that it would implement executive actions designed to ease the restrictions on trade, remittances, and travel with Cuba. These executive actions build upon similar measures taken in 2009. However, under current legislation, substantial modifications to the embargo require congressional action.<sup>1</sup>

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<sup>1</sup>In this report, we define agricultural trade as encompassing those commodities and products within the Foreign Agricultural Trade of the United States (FATUS) classification scheme, as specified by USDA/FAS (2015b).

## U.S.-Cuba Trade Once Substantial

Past levels of U.S.-Cuba agricultural trade suggest the possible size and composition of future trade flows between the two countries. Before the Cuban Revolution, the United States and Cuba were major agricultural trading partners. During fiscal years (FY) 1956-58,<sup>2</sup> Cuba was the ninth leading destination for U.S. agricultural exports and the second leading supplier of U.S. agricultural imports. U.S. agricultural exports to Cuba averaged \$139 million per year during this period (table 1), while corresponding imports averaged \$408 million (table 2), with both figures measured in nominal dollars. At current prices (calendar years 2012-14), U.S. agricultural exports to Cuba during FY 1956-58 would amount to roughly \$600 million annually, while U.S. imports from Cuba would equal about \$2.2 billion. The large value of U.S. agricultural imports from Cuba during FY 1956-58, as measured in 2012-14 prices, is due mainly to the sizable volume of sugar imports during that period and the fact that the nominal unit value for U.S. sugar imports increased by about 400 percent between 1956-58 and 2012-14.

Rice, lard, pork, and wheat flour were the four leading U.S. agricultural exports to Cuba in terms of value during FY 1956-58. Cuba was typically the largest commercial market for U.S. long-grain rice exports prior to the embargo, often taking more than half of U.S. annual long-grain sales and almost one-third of total U.S. rice exports (Efferson, 1952: 518-521; USDA, Agricultural Marketing Service, 1956: 16). If Cuba imported the same amount of rice today as it did then, it would be the 7th leading destination for U.S. rice exports, even though Cuba's annual per capita rice consumption was about two-thirds of what it is today.<sup>3</sup> Consumers in pre-revolutionary Cuba generally liked the taste, appearance, and cooking qualities of U.S. rice varieties and were willing to pay a premium for them. Virtually all U.S. rice exports to Cuba prior to the embargo consisted of milled, southern long-grain rice; long-grain rice is still the dominant class of U.S. rice grown for export.<sup>4</sup>

Cane sugar, molasses, tobacco, and coffee were the four leading U.S. agricultural imports from Cuba during FY 1956-58.<sup>5</sup> Past volumes of U.S. sugar imports from Cuba alone (2.8 million metric tons per year) rival contemporary volumes of total U.S. sugar imports from all countries (3.1 million metric tons per year during 2012-14) (table 2). Cuban sugar exports to the United States are unlikely to return to the levels of the late 1950s. Nonetheless, these exports were so vital to the Cuban economy of the 1950s that Dye and Sicotte (2004) posit that a 1956 revision to U.S. sugar trade policy tightening the import quota for Cuba greatly weakened the Cuban economy just as the Revolution was getting underway.

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<sup>2</sup>The fiscal year of the U.S. Federal Government runs from October 1 to September 30. Thus, FY 2015 began on October 1, 2014, and will end on September 30, 2015. FY 1956-58 were the last 3 FYs prior to the collapse of the pre-revolutionary government in January 1959 and correspond to the period when the revolutionaries pressed their attack.

<sup>3</sup>Cuba averaged 56 kilograms per capita in 1957, obtained by dividing the sum of Cuba's domestic production and imports of rice for 1957, as reported by Mears (1962), by Cuba's population in 1957, as estimated by U.S. Department of Commerce, Bureau of the Census (2013). Cuba's pre-revolutionary rice production peaked in 1957, as the harvest of the subsequent year's main crop was interrupted by the armed conflict.

<sup>4</sup>U.S. rice exports to Cuba picked up sharply during World War II, when shipments from Cuba's previous top suppliers—Burma and Thailand—were suspended due to the war. Prior to the late 1930s, the United States had been only a minor supplier of rice to Cuba. From the mid-1940s up until the embargo, the United States supplied the bulk of Cuba's rice imports (Efferson, 1952: 518-521).

<sup>5</sup>The imported molasses was used primarily to produce industrial alcohol, according to a statement in 1960 by a USDA spokesperson (*The Guardian*, 1960).

Table 1

**U.S. agricultural exports to Cuba, 1956-58 versus 2012-14**

Commodity	Value Annual average		Change	Volume Annual average		Change	Unit value for period		Change
	1956- 58	2012- 14		1956- 58	2012- 14		1956- 58	2012- 14	
	<i>U.S. dollars (millions)</i>		<i>Percent</i>	<i>Metric tons (thousands)</i>		<i>Percent</i>	<i>U.S. dollars per kilogram</i>		<i>Percent</i>
<b>Total agricultural exports to Cuba</b>	139.17	365.26	162	--	--	--	--	--	--
<b>Animals and products</b>	40.60	161.19	297	119.93	148.18	24	0.34	1.09	221
Chickens, fresh or frozen	0.16	131.00	82,637	0.16	143.09	88,015	0.98	0.92	-6
Pork	9.96	4.33	-56	14.43	1.66	-88	0.69	2.60	278
Lard	21.66	0.02	-100	78.04	0.02	-100	0.28	1.41	409
Tallow	2.74	0.00	-100	15.62	0.00	-100	0.18	--	--
Other	6.09	25.84	324	11.68	3.41	-71	0.52	7.57	1,351
<b>Oilseeds and products</b>	4.81	103.58	2,052	40.07	192.48	380	0.12	0.54	348
Soybean meal	1.46	59.37	3,971	30.67	112.72	268	0.05	0.53	1,008
Soybeans	0.00	44.08	--	0.00	79.71	--	--	0.55	--
Soybean oil	1.69	0.00	-100	5.02	0.00	-100	0.34	--	--
Other oilseeds and products	3.36	0.13	-96	4.38	0.05	-99	0.77	2.77	261
<b>Grains and feeds</b>	53.85	97.26	81	353.63	344.06	-3	0.15	0.28	86
Corn	0.00	72.87	--	0.00	269.20	--	--	0.27	--
Brewing or distilling dregs or waste	0.00	14.06	--	0.00	54.91	--	--	0.26	--
Feeds and fodder, NESOI	0.88	10.30	1,065	--	19.91	--	--	0.52	--
Rice	32.90	0.00	-100	165.56	0.01	-100	0.20	0.67	--
Wheat	5.74	0.00	-100	84.00	0.00	-100	0.07	--	--
Wheat flour	8.27	0.00	-100	79.68	0.00	-100	0.10	--	--
Other grains and feeds	6.05	0.03	-100	24.40	0.03	-100	0.25	0.84	238
<b>Vegetables and preparations</b>	15.77	0.09	-99	105.36	--	--	0.15	--	--
Dried beans	6.44	0.00	-100	39.15	0.00	-100	0.16	--	--
Onions	2.11	0.00	-100	26.88	0.00	-100	0.08	--	--
Other vegetables and preparations	9.34	0.09	-99	66.21	--	--	0.14	--	--
<b>Cotton, excluding linters</b>	3.59	1.04	-71	4.77	0.43	-91	0.75	2.44	224
<b>Fruits and preparations</b>	6.75	0.97	-86	16.33	0.51	-97	0.41	1.90	361
<b>Fruit juices</b>	2.19	0.02	-99	--	--	--	--	--	--
<b>Other agricultural exports to Cuba</b>	13.80	1.12	-92	--	--	--	--	--	--

Notes: Data for 1956-58 are for fiscal years; data for 2012-14 are for calendar years. NESOI = not elsewhere specified or indicated.  
Sources: USDA/FAS (1957, 1958, 1959, 2015c).

Table 2

**U.S. agricultural imports from Cuba, 1956-58**

Commodity	Annual average		Unit value for period
	Value	Volume	
	U.S. dollars (millions)	Metric tons (thousands)	U.S. dollars per kilogram
<b>Total agricultural imports from Cuba</b>	407.50	3,924.46	0.10
<b>Sugar and related products</b>	359.25	3,841.67	0.09
Sugar, cane	333.83	2,844.44	0.12
Molasses	25.43	997.23	0.03
<b>Tobacco, unmanufactured</b>	24.73	10.91	2.27
<b>Coffee</b>	9.55	9.28	1.03
<b>Fruits and preparations</b>	6.05	15.88	0.38
Pineapples, canned or preserved	3.57	12.61	0.28
Pineapples, fresh	1.90	--	--
Other fruits and preparations	0.58	3.27	0.18
<b>Vegetables and preparations</b>	2.62	30.14	0.09
<b>Other agricultural imports from Cuba</b>	5.29	16.59	0.32

Notes: Data are for fiscal years.

Sources: USDA/FAS (1957, 1958, 1959).

U.S.-Cuba relations quickly deteriorated after Cuba's new government took power. Cuba expropriated U.S. economic assets, including farms and sugar mills, as part of its efforts to institute a socialist economic system, and the United States imposed economic sanctions against Cuba and broke diplomatic relations. An ERS report on the agricultural and food situation in early post-revolutionary Cuba (Mears, 1962) describes how Cuba switched from a market-based relationship with its agricultural trading partners, primarily the United States, to barter arrangements with the Soviet Union, China, and other countries in the East Bloc. As a result, U.S.-Cuba agricultural trade dropped sharply in 1960 and then disappeared almost completely by the middle of 1961.

The Mears report also describes some of the agricultural trade measures taken by the United States during this period. In July 1960, the United States canceled the remainder of Cuba's sugar quota for 1960 and set the quotas for 1961 and 1962 at zero. Exceptions for U.S. sales of unsubsidized agricultural products and medicine, however, were incorporated within both the partial economic embargo imposed in October 1960 and the much more extensive embargo announced in February 1962, which prohibited all U.S. imports from Cuba.<sup>6</sup>

It was not until May 1964 that the U.S. Department of Commerce revoked the general license for U.S. sales of food and medicine to Cuba and adopted a policy in which licenses for commercial agricultural sales were denied. Only humanitarian donations of agricultural products were approved (Krinsky and Golove, 1993: 114, as cited by Hufbauer et al., 2011: 2-3). Despite efforts by several

<sup>6</sup>For summaries of the political and military confrontations between the United States and Cuba during the late 1950s and early 1960s, see U.S. Department of State, Bureau of Public Affairs, Office of the Historian (2013a, 2013b, 2015).

U.S. administrations to improve U.S.-Cuba relations, the ban on direct agricultural trade with Cuba remained in place for nearly four decades.

Restrictions on indirect trade with Cuba—including agricultural sales by foreign subsidiaries of U.S. companies—have varied over the years. In October 1975, the U.S. Department of Treasury revoked the regulation that prohibited such subsidiaries from trading with Cuba and instead began to require licenses for such transactions (Franklin, 1997: 119-121, as cited by USITC, 2001: 2-5 to 2-6). With the passage of the Cuban Democracy Act in October 1992, however, the Treasury Department lost the authority to issue these licenses for most trade with Cuba (Ross, 2004). Prior to the law, licensed agricultural sales to Cuba by foreign subsidiaries of U.S. firms were in the neighborhood of \$350 million per year (Fletcher, 1992, as cited by Wong, 1994).

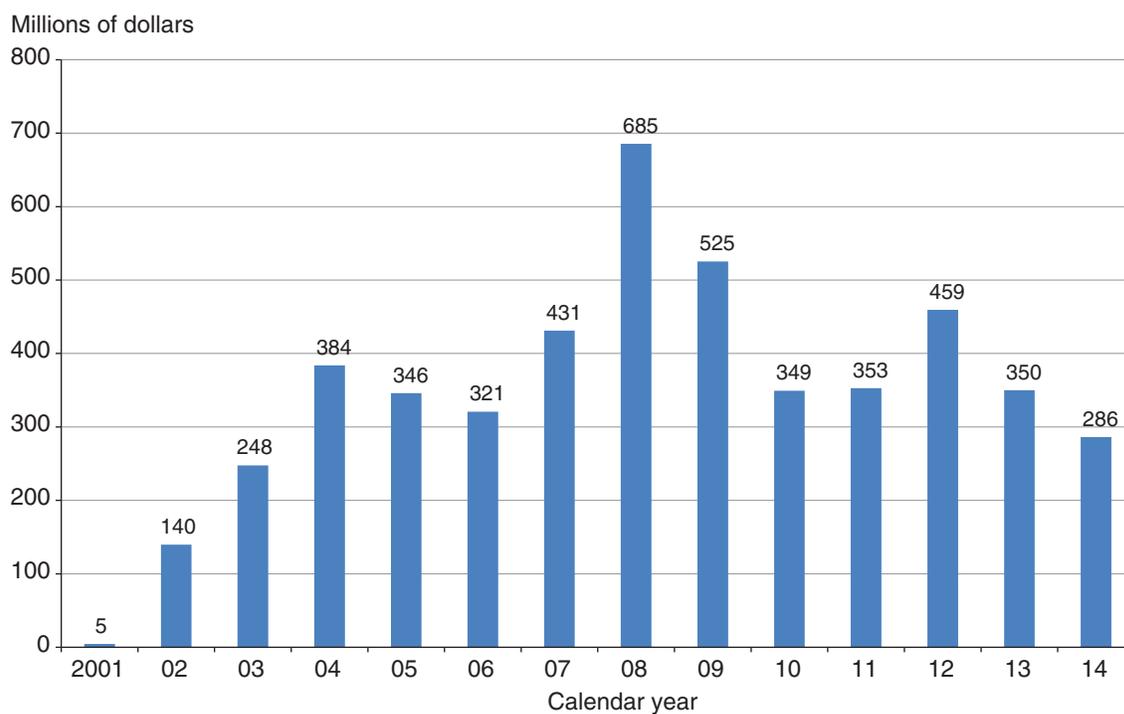
## U.S. Agricultural Exports to Cuba Resume

The current state of U.S.-Cuba agricultural trade is founded upon a major policy change implemented about 15 years ago. In October 2000, the Trade Sanctions Reform and Export Enhancement Act (TSRA)—which authorized certain sales of food, medicines, and medical equipment to a number of countries, including Cuba—was signed into law. At that time, nearly a decade had passed since the dissolution of the Soviet Union and the concomitant end to Soviet economic support for Cuba. In this context, the Cuban Government overcame its initial reluctance to import basic agricultural commodities from the United States in order to supplement domestic production and, when necessary, to respond to short-term food shortages caused by adverse weather conditions. The devastation caused by Hurricane Michelle in November 2001 was an especially strong factor behind the change in Cuba’s stance toward importing U.S. agricultural products (Messina, 2015).

TSRA’s exemptions to the embargo quickly led to the reestablishment of U.S. agricultural exports to Cuba (fig. 1). However, TSRA does not include a legal framework for the resumption of U.S. agricultural imports from Cuba. From 1960 through the mid-1990s, the U.S. economic embargo on Cuba was largely authorized by Executive Orders. This changed with the passage of the Cuban Liberty and Democratic Solidarity Act of 1996 (also known as the Helms-Burton Act, in reference to the law’s sponsors, Senator Jesse Helms of North Carolina and Representative Dan Burton of Indiana). The Helms-Burton Act codifies the embargo (in other words, requires the embargo by law) and defines the conditions for suspending and then terminating the embargo. Specifically, the Act authorizes the President to suspend the embargo when a transition government comes to power in Cuba and to end the embargo altogether when a democratically elected government takes power

Figure 1

**U.S. agricultural exports to Cuba averaged \$365 million per year during 2012-14**



Source: USDA/FAS (2015a).

there.<sup>7</sup> In the absence of new legislation that modifies these provisions, U.S. agricultural imports from Cuba remain at zero, even though Cuba still produces many of the agricultural commodities that it formerly exported to the United States, such as sugar and tobacco.

### *Foreign agricultural sales to Cuba*

U.S. agricultural exports to Cuba averaged \$365 million per year during 2012-14. Exports are heavily concentrated in four basic commodities (table 1). Chicken meat, corn, soybean meal, and soybeans accounted for 84 percent of total exports during this period in terms of value. Cuba is an important market for U.S. broiler meat (Davis et al., 2013). On a quantity basis, Cuba ranked as the fourth largest export market for U.S. broiler meat during 2012-14. Frozen chicken-leg quarters, a relatively low-cost poultry cut, accounted for 83 percent of U.S. broiler meat exports to Cuba in terms of quantity during this period. Corn, soybean meal, and soybeans are all feedstuffs used in livestock production in Cuba. In some years during the TSRA period, U.S. agricultural exports to Cuba have included substantial quantities of commodities other than the four mentioned above, such as rice, wheat, nonfat dry milk, pork, dried beans, and soybean oil.<sup>8</sup> U.S. restrictions on extending credit to Cuban buyers have made it harder for U.S. agricultural exporters to sell a larger volume and broader variety of commodities to Cuba.

The United States is not Cuba's only foreign supplier of agricultural products. Export data reported by Cuba's trading partners indicate that Cuba's agricultural imports from all countries averaged \$1.8 billion per year during 2012-14 (fig. 2). The United States was Cuba's second leading supplier of agricultural imports during this period (\$362 million), while the European Union (EU) (\$383 million) and Brazil (\$348 million) were Cuba's first and third leading suppliers. Together, these three trade partners supplied 61 percent of Cuba's agricultural imports, with the U.S. share equaling 20 percent. From 2003 to 2012, the United States was Cuba's leading supplier of agricultural imports. The United States slipped to second in 2013 and third in 2014.

Cuba's total agricultural imports have been trending upward over the past decade, increasing by 94 percent between 2004 and 2014. The value of these imports was unusually large (\$2.1 billion) in 2008, due in part to high commodity prices. In fact, the unit values of each of the top five U.S. agricultural exports to Cuba (fresh or frozen chicken, corn, wheat, soybeans, and soybean meal) increased by at least 67 percent between 2006 and 2008. Hurricane Ike also contributed to the large value of imports in 2008, as U.S. agricultural exports to Cuba in October and November of that year were larger than the corresponding months in any other year during 2001-14. Cuba's agricultural imports are concentrated in grains and animal products (fig. 3). During 2012-14, the five leading agricultural imports in terms of value were wheat (13 percent), corn (12 percent), chicken meat (11 percent), nonfat dried milk (10 percent), and rice (10 percent).

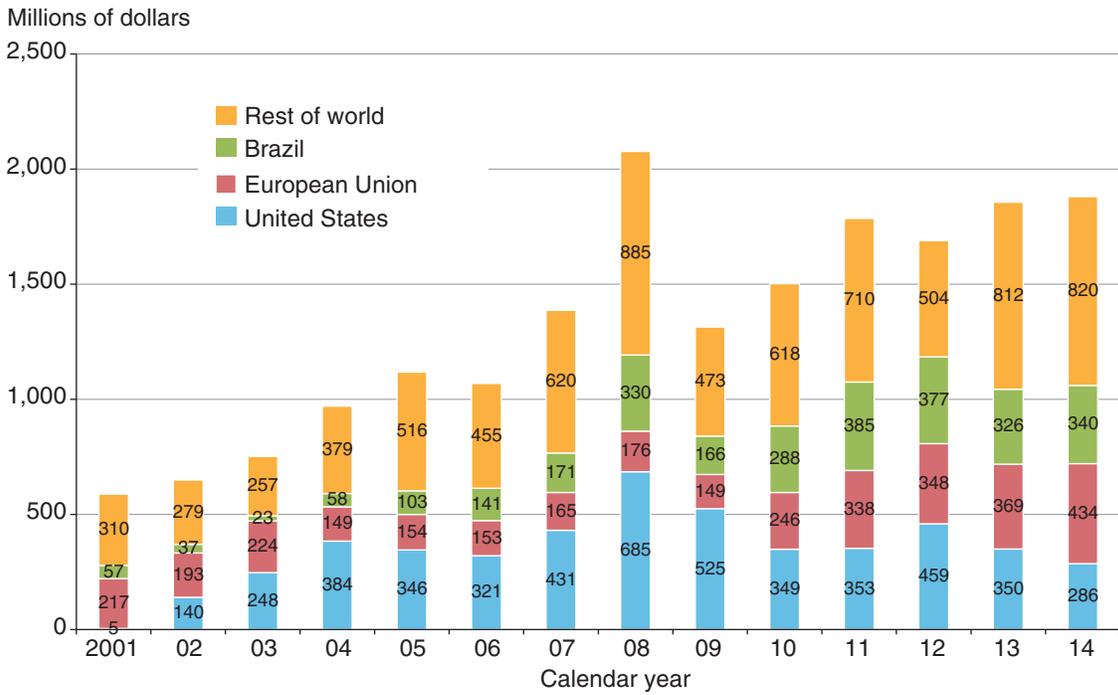
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<sup>7</sup>Haney and Vanderbush (2005) discuss the policy context that led to the passage of the Helms-Burton Act.

<sup>8</sup>Each of these six commodities accounted for at least \$10 million in exports to Cuba during at least 1 year during 2000-11.

Figure 2

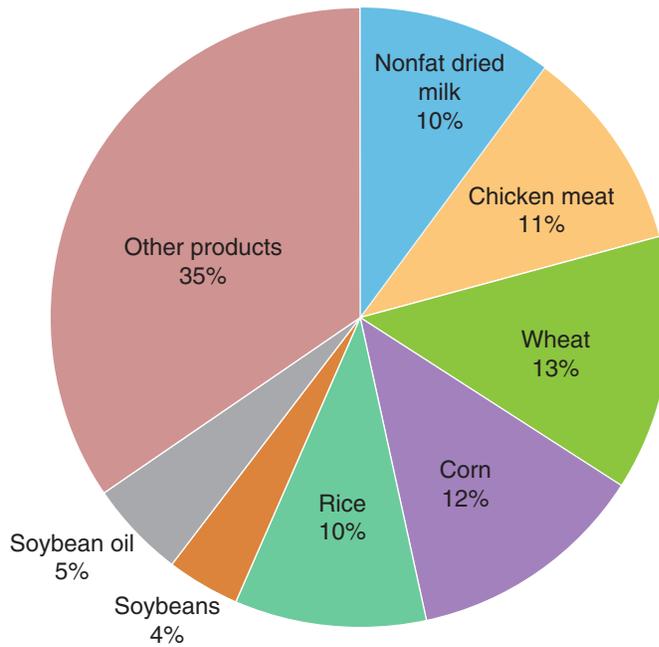
**Cuba's agricultural imports have trended upward over the past decade**



Sources: USDA/FAS (2015a) and export data of various national governments, as cited by Global Trade Information Services (2015).

Figure 3

**Cuba's agricultural imports from the world were concentrated in grains and animal products from 2012 to 2014**



Source: Export data of various national governments, as cited by Global Trade Information Services (2015).

## *U.S. agricultural exports limited by payment requirements and financial restrictions*

A major inhibitor of U.S. agricultural exports to Cuba is the TSRA's restrictions on the terms of payment and financing. TSRA specifies that the only payment or financing terms that U.S. persons may provide for U.S. agricultural exports to Cuba are (1) payment of cash in advance or (2) financing by third-country financial institutions. Moreover, TSRA underscores that nothing in its specification of payment and financing restrictions "authorizes payment terms or trade financing involving a debit or credit to an account of a person located in Cuba or of the Government of Cuba maintained on the books of a United States depository institution" (U.S. Statutes at Large, 2000). Many observers believe that this credit restriction enables other countries to compete more effectively with the United States for agricultural sales to Cuba, as exporters in those countries are able to leverage their sales to Cuba by extending credit and favorable payment terms, while U.S. exporters are prohibited from doing so (Messina, 2015; U.S. International Trade Commission (USITC), 2007).

A ruling issued in 2005 clarifies TSRA's restrictions on cash-in-advance payments. From the implementation of TSRA in 2000 until late 2004, U.S. exporters of agricultural products to Cuba generally believed that it was possible to comply with TSRA's cash-in-advance option by authorizing the transfer of the documents necessary for transferring ownership of the goods to the Cuban importer just after receiving the cash payment. This meant that the cash payment would not be in place until sometime after the shipment had left the U.S. port. In late 2004, however, a number of U.S. financial institutions started to block such transactions due to their uncertain conformity with TSRA's conditions for cash-in-advance payments.

In February 2005, the U.S. Department of the Treasury's Office of Foreign Assets Control issued a ruling that payment of cash in advance means that the payment must be received by the seller or the seller's agent prior to shipment of goods from the U.S. port at which they are loaded. Following this ruling, Cuba began to make payments for its purchases of U.S. agricultural products by using "a confirmed, irrevocable letter-of-credit ... completed with a third country bank" (USDA, Foreign Agricultural Service, Office of Global Analysis, 2008: 24). This change was reportedly motivated by concerns that the new ruling might allow agricultural shipments destined for Cuba to be confiscated in U.S. ports in conjunction with any outstanding legal claims against the Cuban Government (USITC, 2007: 3-5 to 3-6).

Financing by a third-country financial institution is more laborious than making a conventional payment directly from the buyer's financial institution in Cuba to the seller's financial institution in the United States.<sup>9</sup> The Cuban Government adjusted to this technique when buying U.S. agricultural products, although some U.S. agricultural commodity groups viewed the requirement of using third-country financial institutions as an important obstacle.<sup>10</sup> By contrast, the U.S. prohibition on extending credit to Cuba's agricultural importers continues to hamper U.S. efforts to export agricultural products to Cuba. During 2005-07, the United States exported an annual average of 124,000 metric tons of rice, 275,000 metric tons of wheat, 6,000 metric tons of nonfat dried milk, and 33,000 metric tons of soybean oil to Cuba. During 2012-14, however, the United States exported hardly

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<sup>9</sup>The USITC (2007: 3-8 to 3-12) illustrates the difference between these two techniques using U.S. agricultural exports to Cuba and to the Dominican Republic as contrasting examples.

<sup>10</sup>See, for instance, Harris (2015) and National Milk Producers Federation (2009).

any rice, wheat, nonfat dried milk, or soybean oil to Cuba, even though Cuba purchased an annual average of 110,000 metric tons of rice and 75,000 metric tons of soybean oil from Brazil, 462,000 metric tons of wheat from France, and 10,000 metric tons of whole milk powder from New Zealand (Global Trade Information Services, 2015).

Factors other than financial restrictions and payment requirements influence the level of U.S. agricultural exports to Cuba. For instance, the United States consistently exported small quantities of frozen pork muscle cuts and pork variety meats to Cuba over the past decade, except in 2014 when a number of factors made those products more expensive to potential buyers in Cuba. U.S. pork prices were high due to short supplies caused by the porcine epidemic diarrhea virus, and the U.S. dollar was particularly strong. As a result, Cuba imported no muscle cuts of pork from the United States and a smaller volume of pork variety meats in 2014. In addition, Coleman (2009: 6) suggests that Cuba's choice of agricultural importers is the product of noncommercial factors, such as the Cuban Government's desire to have a diverse set of import suppliers, to strengthen its geopolitical relationships with allies such as China and Vietnam, and to curry favor in specific U.S. States or Congressional Districts on the topic of U.S.-Cuba economic relations.

### *Cuba is an established exporter of sugar but few other agricultural products*

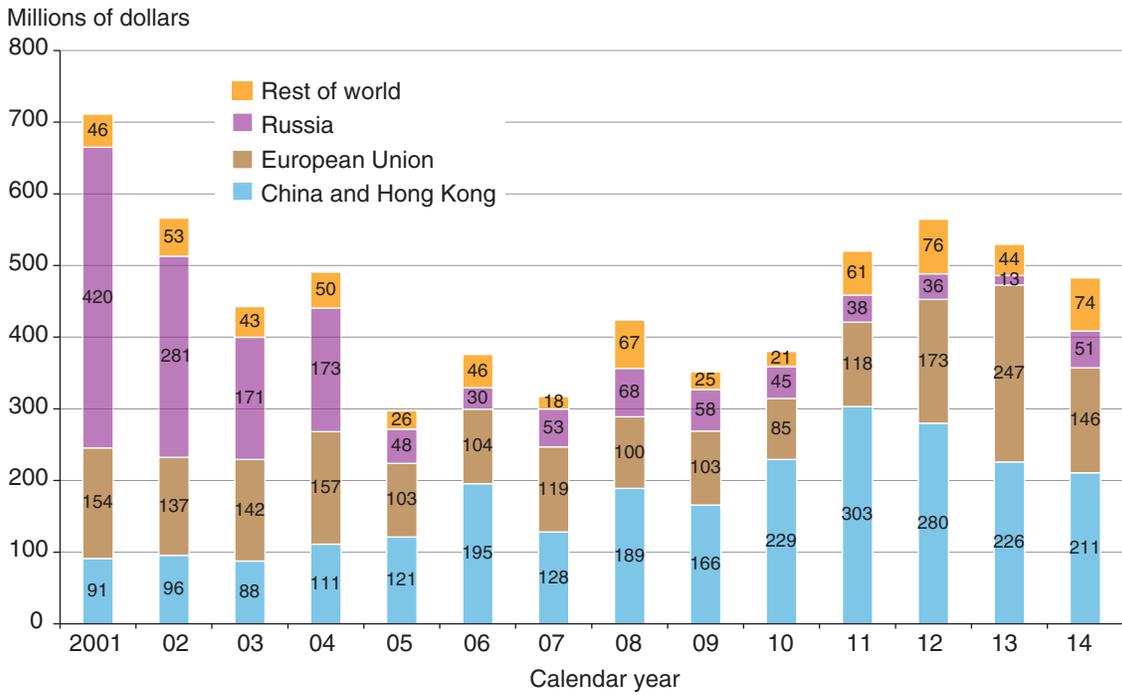
Import data reported by Cuba's trading partners indicate that Cuba's total agricultural exports (to all countries) averaged \$526 million per year during 2012-14 (fig. 4). The leading destinations for these exports were China (including Hong Kong), accounting for 45 percent of the total, and the EU, accounting for 36 percent. Some of these exports are not the result of stand-alone commercial transactions but are linked instead to broader trade and foreign investment deals. For instance, Cuba has an agreement to sell China about 400,000 metric tons of sugar each year, while China has extended loans to Cuba and made direct investments in Cuban oil exploration, petroleum refining, port development, and tourism (Frank, 2013; Rey Mallén, 2014; Menéndez, 2015). By contrast, Cuba's agricultural exports to the EU—which include such commodities as sugar, tobacco, and natural honey—suggest a commercial relationship akin to that between the EU and other Caribbean countries. Cuba received preferential access to the EU market through the EU's General System of Preferences (GSP) until 2013, when Cuba was recognized in United Nations statistics as an upper middle-income country (European Union Delegation to Cuba, 2015).

Russia is currently the third leading destination for Cuba's agricultural exports, although Cuba's agricultural exports to Russia are not much larger in value than its exports to Sweden or Belarus. Russia accounted for 5 percent of Cuba's total agricultural exports during 2012-14. During the Cold War, the Soviet Union heavily subsidized the Cuban economy by importing sugar at well above the world market price (Messina, 2015), and as recently as 2001, Cuban agricultural exports to Russia equaled \$420 million, compared with \$51 million in 2014. A disagreement during the early 2000s regarding the repayment of loans and obligations owed to Russia appears to have soured the Cuba-Russia economic relationship, although reports last year suggest that this relationship is on the mend (Tamayo, 2014).

Sugar accounts for the overwhelming majority of Cuba's agricultural exports to the world. During 2012-14, Cuba's sugar exports averaged \$470 million per year, accounting for 89 percent of the country's total agricultural exports. Natural honey, with exports averaging \$19 million per year (3 percent of the total), was Cuba's second leading agricultural export. Among Cuba's nonagricultural exports are several products that are manufactured using the agricultural commodities of either tobacco or sugarcane. Cuba has long been known for its cigars. During 2012-14, cigar and ciga-

Figure 4

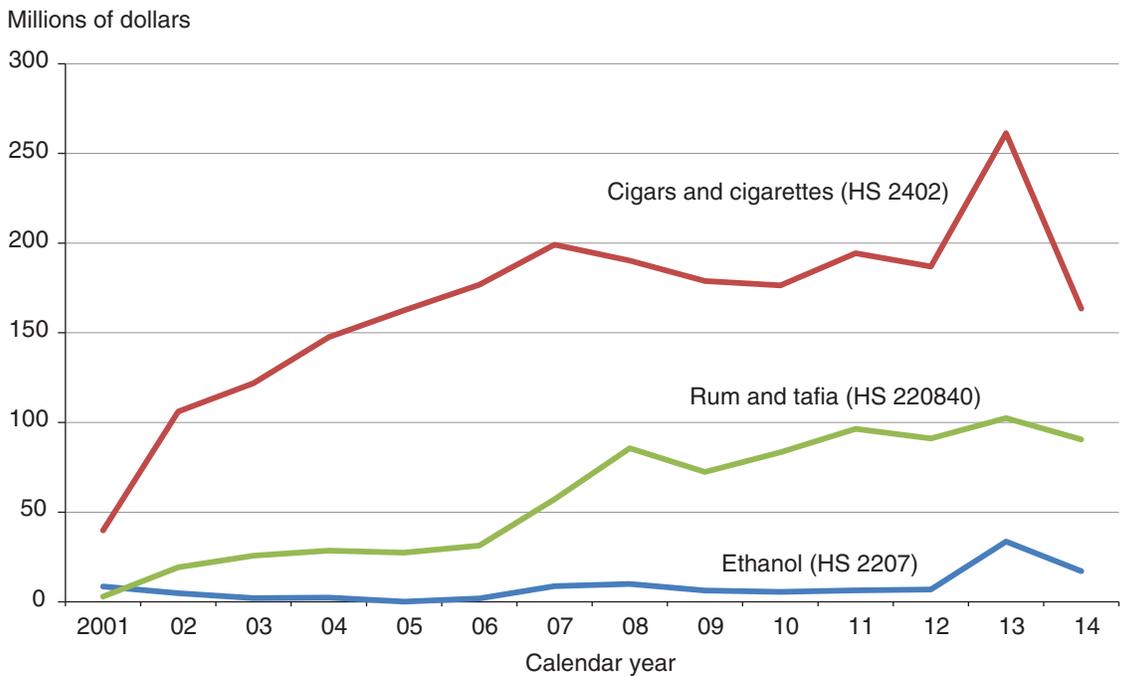
**China and the European Union are the leading destinations for Cuba's agricultural exports**



Sources: USDA/FAS (2015a), and import data of various national governments, as cited by Global Trade Information Services (2015).

Figure 5

**Cuba's exports of ethanol, cigars, rum, and tafia grew substantially over the past decade**



Source: Import data of various national governments, as cited by Global Trade Information Services (2015).

rette exports averaged \$222 million per year. These exports increased substantially during the first several years of the 21st century and have fluctuated since then. In addition, Cuba has reestablished itself as an important exporter of rum and tafia, with export value growing from \$27 million in 2005 to \$91 million in 2014.<sup>11</sup>

### *The Cuban Rice Sector*

Cuba's diversification away from U.S. rice imports represents the loss of a lucrative export opportunity for U.S. rice growers, since Cuba has the highest per capita rice consumption of any country in the Western Hemisphere. Annual per capita rice supply (milled equivalent) is about 61 kilograms in Cuba, 49 kilograms in Costa Rica and the Dominican Republic, 44 kilograms in Nicaragua, and 7 kilograms in the United States, according to Food Balance Sheets for 2011-13 from the Food and Agriculture Organization of the United Nations (2015). Today, Cuba imports about half of its annual rice consumption, with rice imports averaging about 435,000 tons per year during 2010-14. Vietnam supplies 70 percent or more of Cuba's rice imports—mostly 5 and 15 percent broken long-grain milled rice—while Brazil supplies most of the remainder. Brazil has been a major supplier of rice to Cuba since 2012.

In 2013/14, Cuba produced 423,000 tons of rice (milled basis), nearly unchanged from the previous year but up 18 percent from 2000/01 (USDA/FAS, 2015c). Rice area, yield, and production in Cuba can vary by a wide margin each year due to weather and input availability. Cuba plants two rice crops a year. The main crop is planted in April-July and harvested in August-December. The second crop is planted in December-February and harvested in March-June. Crop calendars, of course, vary somewhat across producers, regions, and time. The largest producing Provinces are Pinar del Rio, Granma, and Sancti Spiritus. Some producers are able to harvest a second partial or "ratoon" crop from the stubble of the first crop harvest.

Cooperative farms, producers with use privileges on state-owned land, and small-scale farmers account for the bulk of the area devoted to rice in Cuba, according to official Cuban data for 2009 (República de Cuba, Oficina Nacional de Estadística, 2010). Since 2009/10, rice area has averaged 203,000 hectares per year, up from an average of 144,000 hectares during the previous 5 years. The Cuban Government wants to boost domestic rice production and reduce imports, especially after the 2007/08 price spike and export bans by some rice-exporting countries, and has received technical assistance dedicated to the rice sector from several rice-producing countries, including Brazil, Japan, and Vietnam.

Cuba's field yields averaged 2.8 metric tons per hectare (rough-rice basis) from 2009/10 to 2013/14 and have shown no signs of long-term growth since the late 1970s. Cuba's yields are low compared with other rice growing countries in the region. From 2009/10 to 2013/14, rice yields averaged 4.7 metric tons per hectare in the Dominican Republic, 4.4 metric tons in Nicaragua, and 3.5 metric tons in Costa Rica. Traditionally, researchers have pointed to a lack of inputs (chemicals, fertilizers, and irrigation infrastructure) and the continued participation of state farms in rice production as the main factors explaining Cuba's lower yields (Alvarez, 2004).

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<sup>11</sup>Rum is "an alcoholic liquor distilled from sugar-cane residues or molasses," while tafia is a "drink similar to rum, distilled from molasses or waste from the production of brown sugar" (Oxford University Press, 2015). USDA's definition of agricultural trade considers beer, wine, and unmanufactured tobacco to be agricultural products, but not rum, other distilled spirits, and tobacco products such as cigars and cigarettes.

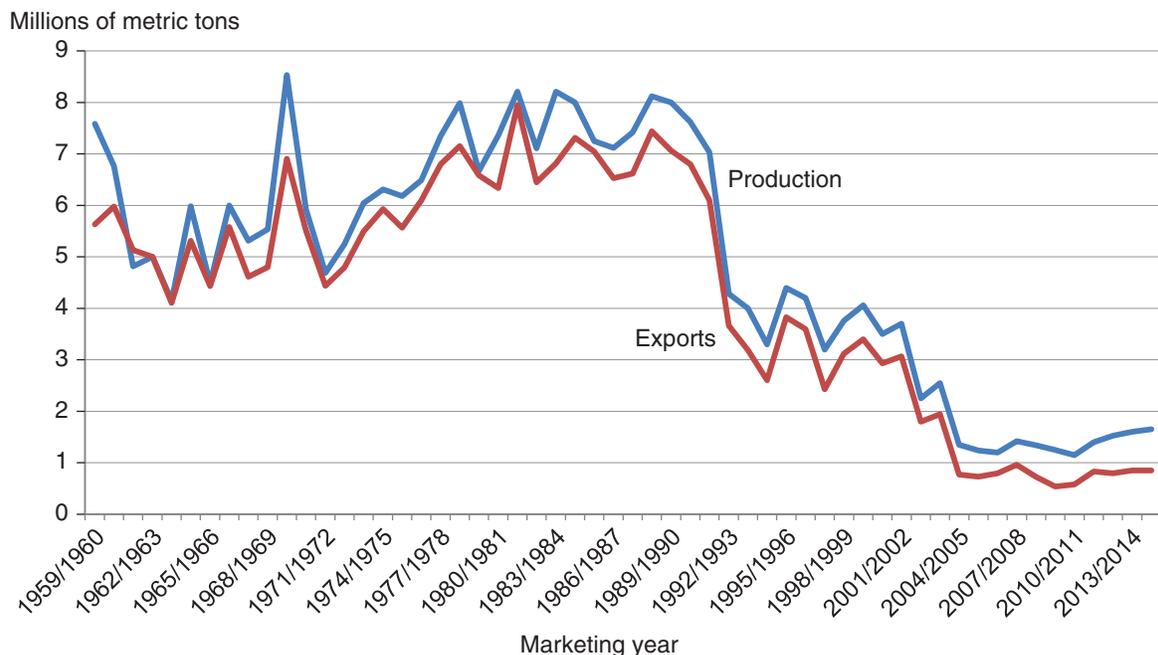
## The Cuban Sugar Sector

Cuba's sugar industry is much smaller than it was during the Cold War (fig. 6). At its peak, Cuba produced between 6.5 million and 8.5 million metric tons of sugar annually, with over 90 percent of production destined for export, on average. If Cuba's current production and export levels equaled those of the 1980s (marketing years 1981/82 to 1990/91), Cuba would be the world's 7th largest producer and 3rd largest exporter of sugar (table 3). The Soviet Union was Cuba's leading customer for sugar during the 1980s; following the Soviet Union's dissolution in 1991, there was a precipitous decline in Cuban sugar production and exports. For marketing years 2012/13 to 2014/15, Cuba's sugar production and exports are estimated to have averaged about 1.6 million metric tons and 967,000 metric tons per year, respectively.

Foreign investment from Brazil has helped Cuba to increase its sugar production over the past several years (Messina, 2015). In 2012, a Brazilian firm signed a 13-year agreement to manage a Cuban sugar mill jointly with Grupo Azucarero (AZCUBA), Cuba's state-owned industrial group in the sugar sector, and a British firm signed an agreement to produce biogas using sugarcane bagasse and other feedstocks (Grogg, 2013; Birch, 2015). Despite the increased emphasis on producing distilled spirits and bioenergy from Cuban sugarcane, exports continue to be important for the sector. During 2012-14, exports accounted for about 52 percent of Cuban sugar production (calculated using data in table 3). Russia remained Cuba's largest export market for sugar through 2004 (fig. 7). Since then, China has been Cuba's largest export market. Given its contract to supply China with 400,000 metric tons of sugar each year, Cuba's annual sugar exports to China have ranged from about 370,000 to 438,000 metric tons over the past decade (2005-14), according to Chinese import data cited by Global Trade Information Services (2015). Cuba also has offset some of its lost sugar exports to Russia by increasing sales to the EU.

Figure 6

### Cuba's role as a sugar producer and exporter greatly diminished after the Soviet Union's dissolution in 1991



Source: USDA/FAS (2015b).

Table 3

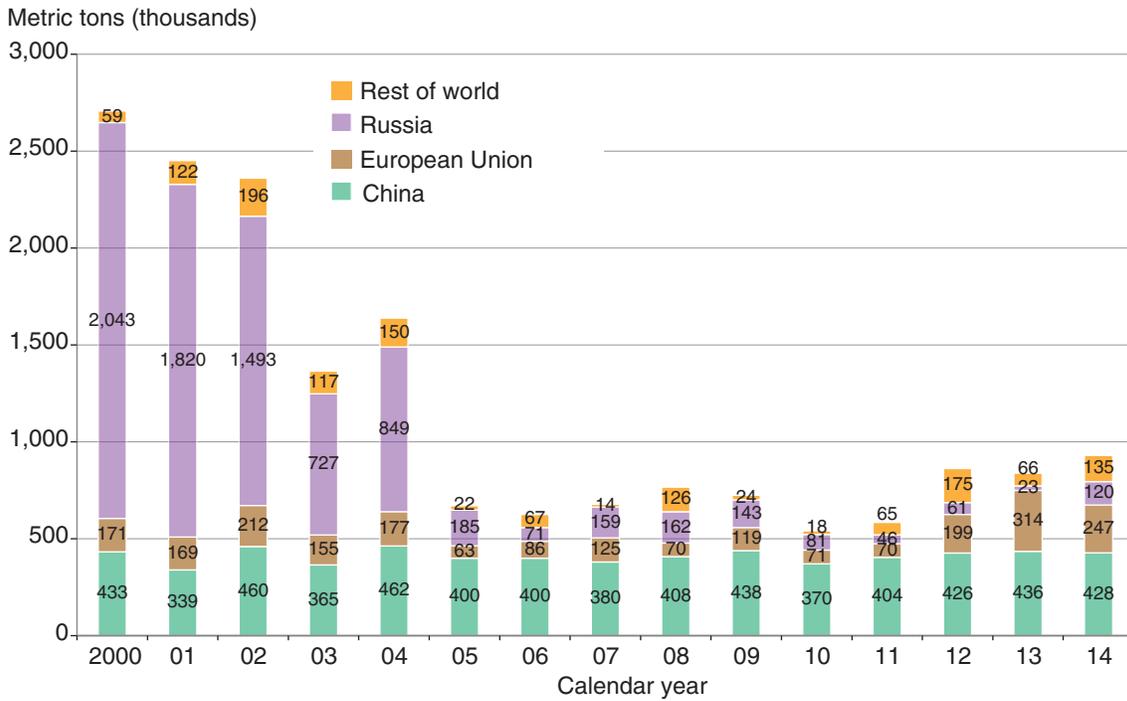
**World sugar production and exports: Averages, marketing years 2012/13 to 2014/15**

Country	Production	Country	Exports
	<i>Thousands of metric tons</i>		<i>Thousands of metric tons</i>
Brazil	37,417	Brazil	26,133
India	27,808	Thailand	7,298
European Union	16,475	<b>Cuba, 1981/82 to 1990/91</b>	<b>7,003</b>
China	13,088	Australia	3,301
Thailand	10,776	Mexico	2,116
United States	7,853	Guatemala	2,070
<b>Cuba, 1981/82 to 1990/91</b>	<b>7,706</b>	India	1,755
Mexico	6,712	European Union	1,571
Pakistan	5,287	<b>Cuba, 2012/13 to 2014/15</b>	<b>967</b>
Russia	4,583	Pakistan	810
Australia	4,443	Colombia	717
Guatemala	2,847	South Africa	656
Philippines	2,467	United Arab Emirates	624
Indonesia	2,233	Algeria	500
Colombia	2,200	Belarus	489
South Africa	2,190	El Salvador	438
Turkey	2,162	Mauritius	431
Argentina	2,077	Nicaragua	393
Egypt	2,027	Swaziland	371
Ukraine	1,910	Egypt	367
Vietnam	1,667	South Korea	353
<b>Cuba, 2012/13 to 2014/15</b>	<b>1,592</b>	Malaysia	310
Iran	1,340	Philippines	275
Peru	1,150	Azerbaijan	248
Japan	750	United States	236

Note: Data include both cane and beet sugar.

Source: USDA/FAS (2015b).

Figure 7  
**Cuba's sugar exports by destination, 2000-2014**



Source: Import data of national governments, as cited by Global Trade Information Services (2015).

## U.S.-Cuba Possible Future

Two countries enjoy normal trade relations (NTR), formerly referred to as most-favored-nation (MFN) status, when each country provides to the other the same trade benefits that it provides to any other country with which it has NTR. For agricultural trade, this includes the application of MFN tariffs to any imports originating in the other country. In addition, countries that have established NTR with each other generally do not prohibit routine, short-term travel from one country to the other for the purposes of business or pleasure. The executive actions announced in December 2014 are a small step toward NTR between Cuba and the United States. While the executive actions modify the payment and financial restrictions governing U.S. exports to Cuba and provide for additional exemptions to the U.S. economic embargo, they provide no opportunities for U.S. agricultural imports from Cuba, save for the small purchases that licensed travelers to Cuba are allowed to bring home. Given the terms of the Helms-Burton Act, congressional action is required—in the absence of a democratically elected government in Cuba—to make more substantial changes to the economic embargo.

Establishment of NTR with Cuba is likely to have both short-term and long-term effects on U.S.-Cuba agricultural trade. The short-term effects would be from the immediate removal of certain restrictions—say, the ban on U.S. agricultural imports from Cuba—while the long-term effects would be from the additional economic growth and reduced transaction costs stimulated by the policy changes. Of particular importance to agricultural trade are sectors in the Cuban economy that rely on intermediate and final agricultural imports—such as tourism, restaurants, food services, livestock production, and food manufacturing—and sectors in which Cuba specializes due to its resource endowments and acquired comparative advantages, such as fruit, vegetables, sugar, and tobacco. (For sugar, access to the U.S. market depends on U.S. sugar policy.)

Even the short-term effects of establishing NTR with Cuba are potentially large for U.S. agricultural exports. Partial-equilibrium models (USITC, 2007) suggest that if all U.S. financing and travel restrictions had been eliminated in 2006, U.S. agricultural exports to Cuba would have increased from \$321 million to roughly \$550 million. However, the authors of the USITC study caution against summing the partial-equilibrium results for each commodity to obtain the total effect of removing restrictions, since their models do not take into account cross-commodity substitutions. A separate analysis by Rosson, et al. (2010) using an input/output model indicates that U.S. exports to Cuba would increase by up to \$365 million per year if U.S. financing and travel restrictions were removed, including some \$327 million in additional agricultural exports, as defined by USDA.

### *The updated U.S. approach to Cuba*

The new U.S. approach to Cuba contains several key elements that have the potential to affect U.S.-Cuba agricultural trade, albeit in small ways.<sup>12</sup> Several of these elements are intended to remove outright obstacles to bilateral trade, others are designed to reduce transaction costs, and still others aim at fostering greater growth in the Cuban economy. The first element is the effort to **reestablish diplomatic relations with Cuba**. In January 2015, a U.S. delegation met with Cuban officials in Havana to discuss a wide range of issues, and several subsequent rounds of meetings have been held (Whitefield, 2015). While these efforts alone do not ensure increased agricultural trade between the

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<sup>12</sup>In this section, we use a summary by Parlapiano (2014) to identify those elements within the updated U.S. approach, as described by the White House (2014), that are new and not implemented previously.

two countries, they portend a more favorable economic and policy environment for bilateral agricultural trade over the medium and long term.

The second element is the *relaxation of some U.S. restrictions on travelling to Cuba*. Specifically, the U.S. Government is expanding the set of classifications of U.S. citizens and permanent residents who may visit Cuba under general license from the U.S. Government, requiring no special approval. The added classifications are:

- Public performances, clinics, workshops, athletic and other competitions, and exhibitions;
- Support for the Cuban people;
- Humanitarian projects;
- Activities of private foundations or research and educational institutes;
- Exportation, importation, or transmission of information or information materials; and
- Certain export transactions that may be considered for authorization under existing regulations and guidelines.<sup>13</sup>

This loosening of travel restrictions could have a small, positive impact on U.S. agricultural exports to Cuba by making it easier for people pursuing authorized export transactions to travel there. However, other export restrictions that are still in place, most notably the limitations on financing and credit, are likely more onerous than the previous set of travel restrictions. Increased travel involving private foundations, research or educational institutions, and the dissemination of information might not immediately result in more U.S. agricultural sales to Cuba, but could strengthen Cuban ties with the U.S. agribusiness and academic sectors, which could help the further development of production agriculture in Cuba.

The third element consists of *additional exemptions to the embargo on U.S. exports to Cuba*. New items authorized for export include certain building materials for private residential construction, goods for use by entrepreneurs in the Cuban private sector, and tools and equipment for private-sector agricultural activity. These new exemptions could also stimulate additional agricultural trade between Cuba and the United States. For instance, small-scale Cuban poultry producers who import farm equipment may increase their feedstuff imports from the United States (and other countries). In addition, licensed U.S. travelers to Cuba will be allowed to import up to \$400 worth of goods for personal use, with a limit of \$100 for tobacco and alcohol combined. This policy change is likely to result in the resumption of U.S. agricultural imports from Cuba, albeit on a small scale, to the extent that any agricultural products are among the goods allowed.

The fourth element is the further *relaxation of U.S. restrictions on remittances to Cuba*. Remittances are transfers of money sent by a migrant or immigrant to people in his or her country of

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<sup>13</sup>Already on the list of classifications requiring only a general license in order to travel to Cuba are: family visits; official business of the U.S. Government, foreign governments, and certain intergovernmental organizations; journalistic activity; professional research and professional meetings; educational activities; and religious activities.

origin.<sup>14</sup> Since 2009, the United States has placed no limits on the amount of money one can remit to close relatives in Cuba. The new policy approach will raise the limit on general donative remittances to Cuban nationals (except to certain officials of the government or the Communist Party) from \$500 to \$2,000 per quarter. Moreover, specific licenses will no longer be required for donative remittances for humanitarian projects, support for the Cuban people, and support for the development of private businesses in Cuba—nor for remittances from remittance forwarding services other than financial institutions.

Increased remittances to Cuba could increase consumer budgets, thereby enabling additional foreign agricultural sales to Cuba. Also, some remittances could be used to invest in agricultural production or retail establishments. Regression analysis by Romanò and Echevarría León (2015) indicates that remittances are a significant determinant of whether a Cuban worker in Havana will pursue legal self-employment (“cuentapropismo”). While the higher ceiling on remittances could allow for a quadrupling of U.S. remittances to Cuba (to people who are not close relatives), the extent to which the previous set of restrictions was a binding constraint will not be apparent until future levels of remittances are recorded. Already, U.S. remittances to Cuba are quite large—in the neighborhood of \$1.4 billion to \$2.5 billion per year (U.S. Department of State, Bureau of Western Hemisphere Affairs, 2013; Kandell, 2015).

The fifth element is a set of *policy changes intended to facilitate authorized transactions* between the United States and Cuba. The regulatory definition of the statutory term “cash in advance” was revised to specify that it means “cash before transfer of title.” This regulatory change addresses the concern that the revised definition of the term issued in February 2005 adversely affected U.S. agricultural exports to Cuba. The U.S. Department of Treasury’s interpretation in 2005 required that cash payments be made before the goods left a U.S. port, whereas the revised interpretation is more reflective of normal cash-in-advance arrangements.<sup>15</sup> In addition, U.S. institutions will now be permitted to open correspondent accounts at Cuban financial institutions to facilitate the processing of authorized transactions, and U.S. credit and debit cards will be permitted for use by travelers to Cuba. These changes will lower the transaction costs for U.S. exports to Cuba by reducing the liquidity constraint of the payment method and opening new avenues for cash flows, thereby increasing the opportunities for trade. However, the policy changes still do not allow U.S. exporters to extend credit to their Cuban buyers, which places U.S. agricultural exporters at a competitive disadvantage with other exporting countries. By contrast, South Korea’s state-run Korea Trade Insurance Corporation signed a memorandum of understanding in February 2015 for a credit line worth \$67.9 million in order to facilitate Korean exports to Cuba (Yonhap News Agency, 2015).

The sixth element concerns the intention of the U.S. Government to assist with *providing internet access to a greater share of the Cuban population*. The commercial export of certain consumer

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<sup>14</sup>The World Bank (2015b) provides a more thorough definition: “Personal remittances are the sum of personal transfers and compensation of employees.... Personal transfers include all current transfers in cash or in kind between resident and nonresident individuals, independent of the source of income of the sender (and regardless of whether the sender receives income from labor, entrepreneurial or property income, social benefits, and any other types of transfers; or disposes assets) and the relationship between the households (regardless of whether they are related or unrelated individuals). Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities.”

<sup>15</sup>The U.S. Department of Commerce’s International Trade Administration (2012:4) defines the cash-in-advance payment method as when “payment is received before the ownership of the goods is transferred.”

communications devices, related software, applications, hardware, services, and items for the establishment and update of communications-related systems will be permitted. Telecommunications providers will be allowed to establish the necessary mechanisms, including infrastructure, in Cuba to provide commercial telecommunications and internet services. These changes are intended to improve telecommunications between Cuba and the rest of the world, which may also facilitate U.S.-Cuba trade. In addition, wireless telecommunications in the developing world is key to helping buyers and sellers of agricultural products to find better prices.

Finally, the seventh element *updates the application of U.S. sanctions on Cuba in third countries*. U.S.-owned or -controlled entities in third countries will be generally licensed to provide services to, and engage in financial transactions with, Cuban individuals in third countries. In addition, general licenses will unblock the accounts at U.S. banks of Cuban nationals who have relocated outside of Cuba, permit U.S. persons to participate in third-country professional meetings and conferences related to Cuba, and allow foreign vessels to enter the United States after engaging in certain humanitarian trade with Cuba, among other measures. The end of these restrictions may have unknown but positive implications for U.S.-Cuba agricultural trade.

### *Might a “Normal” Agricultural Trading Relationship with Cuba Look Like the Dominican Republic?*

For U.S. exports, a more normal agricultural trading relationship between the United States and Cuba might resemble the current relationship between the United States and the Dominican Republic. As large countries in the Caribbean, Cuba and the Dominican Republic are similar in many ways. The populations are similar (11.1 million for Cuba versus 10.5 million for the Dominican Republic, according to estimates for 2015 from the U.S. Department of Commerce, Bureau of the Census (2013)), as is per capita income (about \$10,200 for Cuba in 2010 and \$12,800 for the Dominican Republic in 2014 in terms of purchasing power parity, according to estimates by the Central Intelligence Agency (2015)).<sup>16</sup>

As destinations for U.S. agricultural exports, however, Cuba and the Dominican Republic differ in several respects. During 2012-14, U.S. agricultural exports to the Dominican Republic (\$1.1 billion, annual average) were more than triple the size of exports to Cuba (\$365 million) (table 4). Also, U.S. agricultural exports to the Dominican Republic cover a wider range of commodities than exports to Cuba (table 4). Thus, a more normal agricultural trading relationship between the United States and Cuba might feature a much larger level of U.S. agricultural exports to Cuba, including commodities that the United States sold to Cuba during the 2000s but not recently—such as dry milk, wheat, rice, and dried beans—and perhaps even intermediate and consumer-oriented commodities that Cuba has never imported from the United States in large quantities.

Given the geographic proximity of Cuba and the United States, part of the increase in U.S. agricultural exports to Cuba may come from the diversion of other countries' exports to Cuba. Import data for HS chapters 01, 02, and 04-24 indicate that the U.S. share of the Dominican Republic's agricultural imports was about 45 percent in 2013 (United Nations, Department of Economic and Social Affairs, Statistics Division, 2015). By contrast, the U.S. share of Cuba's agricultural exports was about 20 percent during 2012-14. Expansion of tourist-oriented food services in Cuba could also

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<sup>16</sup>Cuba's gross domestic product (GDP) is challenging to estimate due to the presence of market and nonmarket elements in the Cuban economy. According to the World Bank (2015a), Cuba's GDP per capita was about \$6,100 in 2013, and the Dominican Republic's was about \$5,700, without accounting for cross-country differences in purchasing power.

Table 4

**U.S. agricultural exports to the Dominican Republic and Cuba: Annual averages, 2012-14**

Product	Exports to the Dominican Republic		Exports to Cuba	
	Value	Volume	Value	Volume
	<i>Dollars (thousands)</i>	<i>Metric tons (thousands)</i>	<i>Dollars (thousands)</i>	<i>Metric tons (thousands)</i>
<b>Total agricultural exports</b>	1,149.643	--	365.255	--
<b>Animals and animal products</b>	233.699	--	161.192	--
Beef and veal	40.351	4.584	0.041	0.042
Pork	40.700	16.363	4.331	1.663
Chicken meat, fresh or frozen	21.156	18.204	148.925	143.085
Turkey meat, fresh or frozen	10.840	4.807	1.112	0.722
Nonfat dry milk	28.131	7.779	0	0
Cheese	19.961	4.318	0	0
Other animals and animal products	72.560	--	6.783	--
<b>Grains and feeds</b>	331.272	852.667	97.257	344.061
Wheat, unmilled	158.847	494.020	0	0
Corn	67.430	303.728	72.869	269.198
Prepared foods obtained by the swelling or roasting of cereals or cereal products, not containing sugar	35.828	6.155	0	0
Brewing or distilling dregs or waste	0.271	1.074	14.055	54.912
Mixed feeds, not elsewhere specified or indicated	1.469	1.283	10.279	19.914
Other grains and feeds	67.427	46.407	0.054	0.037
<b>Fruit and preparations</b>	34.322	22.522	0.973	0.511
Apples, fresh	15.363	14.363	0.104	0.087
Other fruit and preparations	18.959	8.159	0.869	0.424
<b>Fruit juices<sup>1</sup></b>	13.029	9.160	0.015	0.006
<b>Vegetables and preparations</b>	46.850	--	0.090	--
Dried beans	24.302	23.853	0	0
Other vegetables and preparations	22.548	--	0.090	--
<b>Oilseeds and products</b>	292.231	458.598	103.584	192.478
Soybean meal	186.780	359.247	59.371	112.721
Soybean oil	64.918	68.958	0	0
Soybeans	0.345	0.624	44.083	79.710
Other oilseeds and products	40.188	--	0.130	--
<b>Tobacco, unmanufactured</b>	89.898	9.027	0	0
<b>Essential oils</b>	10.315	0.920	0	0
<b>Sugar and tropical products</b>	20.337	8.402	0.063	0.009
<b>Other horticultural products</b>	50.553	--	1.029	--
<b>Other agricultural exports</b>	27.137	--	1.052	--

<sup>1</sup>Volume is measured in millions of liters, and unit value is measured in dollars per liter.  
Source: USDA/FAS (2015a).

boost U.S. agricultural sales to Cuba, including such products as cheese, yogurt, and higher value cuts of pork, poultry meat, and beef.

For U.S. imports, Cuba's current agricultural exports to the world might be indicative of the country's initial ability to export agricultural products to the United States. Sugar and tobacco currently account for about 70 percent of Cuba's agricultural exports to the world, but it is not known whether future U.S. sugar policy would allow for significant imports from Cuba. Over time, Cuba is likely to develop comparative advantages in the production and export of certain citrus and tropical fruit (Kost, 2004b, 2004c), vegetables, tropical plants, and cut flowers, although this will require greater investment. Over the past several decades, Cuba is reported to have made strides in organic production, due in part to the decreased availability of pesticides, fertilizers, and petroleum that resulted from the dissolution of the Soviet Union (United Nations Environment Programme, 2015; Zepeda, 2003; Kost, 2004a).

### *Rice*

With establishment of a more normal trading relationship between Cuba and the United States, the U.S. rice industry would be likely again to sell rice to Cuba and may be able to regain a large share of Cuba's import market, but only if U.S. suppliers are able to provide competitive terms of credit. Several factors favor U.S. rice suppliers in the Cuban market. First, the United States is a consistent, year-round supplier of the high-quality rice that is attractive to Cuban consumers. Second, the United States enjoys a distinct transportation advantage over Cuba's current rice suppliers. The Port of New Orleans is about two sailing days away from the Port of Mariel, compared with more than 30 days for the Vietnamese port of Ho Chi Minh City.<sup>17</sup> This transportation advantage partially offsets the higher price of U.S. rice compared with rice from Vietnam. U.S. rice typically sells at a higher price than rice from Asian exporters because of differences in quality. As of late May 2015, U.S. prices were about \$130 per metric ton (36 percent) above prices for comparable grades of Vietnamese rice, but about \$65 below Brazil's prices. Because the United States is able to ship many smaller-sized cargoes throughout the year to ports throughout Cuba, there is an opportunity for Cuba to reduce the internal trucking costs associated with distributing large shipments of rice arriving in the Port of Mariel to local markets. Third, the United States has the potential to export rough rice to Cuba, which could then be fully milled there. Asia's rice exporting countries generally do not allow exports of rough rice. Brazil currently exports rough rice mostly to Central and South America. Fourth, if Cuba opens up further as a tourist destination, demand for high-quality rice would increase, supporting increased U.S. sales.

### *Meat and dairy products*

To the extent that the relaxation of trade and travel restrictions spurs economic growth in Cuba, a more normal trading relationship should stimulate U.S. exports to Cuba of meat and dairy products. Animal proteins are a luxury in Cuba, and exports of significant volumes of high-value meat and dairy products will require further growth in the disposable incomes of Cuban consumers. In the near term, U.S. exports of low-value muscle cuts of pork, pork variety meats, chicken leg quarters, and milk powder are more likely to increase, but this trade growth also will depend on further income growth. Cuban demand for imported pork, for instance, is concentrated in products with a

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<sup>17</sup>The deepwater Port of Mariel is being renovated amid the construction of an adjacent industrial zone. This project will cost about \$1 billion and is being funded primarily by the Brazilian Development Bank (BNDES), which is providing about \$700 million of the financing (Wilkinson and Bevins, 2015).

lower unit value, such as pork trim, butts, hams, and pork variety meats. Trim, butts, and hams are typically used as inputs into further processed pork products such as sausage and lunch meats, types of protein that are affordable, convenient, and attractive to consumers in upper middle-income countries such as Cuba. Fewer U.S. restrictions on travelling to Cuba could induce Cuban import demand for higher value meat cuts as the hotel, restaurant, and institutional sectors develop.

## *Sugar*

A more normal trading relationship with Cuba would likely result in the establishment of some U.S. sugar imports from Cuba, but at volumes much smaller than during the late 1950s. The United States is a net importer of sugar, but most of its sugar imports come from Mexico, which has duty-free access as part of the North American Free Trade Agreement (NAFTA).<sup>18</sup> The United States uses a tariff-rate quota (TRQ) system, instituted through the Agreement on Agriculture of the World Trade Organization (WTO), to manage its sugar imports from most other countries. Cuba is a WTO member, so if Cuba were allocated quota space within the TRQ, some level of imports would likely occur, depending on the size of the quota and conditions within the U.S. market.

Boughner and Coleman (2002) discuss six options for normalizing Cuban access to the U.S. sugar market that are compliant with U.S. obligations under its multilateral trade agreements at the World Trade Organization (WTO): (1) allocating quotas on a first-come, first-served basis; (2) auctioning the quotas; (3) redistributing the TRQ among countries, including Cuba; (4) increasing the TRQ to accommodate Cuba; (5) replacing the TRQ with a simple tariff; and (6) specifying the market access for Cuban sugar as part of an existing free-trade agreement (FTA) or a bilateral FTA with Cuba. If and when the United States does provide market access to Cuban sugar, it is unlikely that Cuban sugar production will ever achieve levels similar to those of the 1980s, which were predicated on Soviet demand. More likely is a scenario where Cuba exports some sugar to the United States, while focusing on the manufacture of sugarcane-based products such as rum, tafia, and perhaps even ethanol for both domestic and international markets.

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<sup>18</sup>Although Mexican sugar exports to the United States are free from tariff and quota restrictions under NAFTA, they face separate quantity and price limits as part of a December 2014 agreement between the U.S. and Mexican Governments that suspended U.S. antidumping and countervailing duty investigations concerning sugar imports from Mexico. In April 2015, however, the U.S. Department of Commerce announced that it would resume these investigations in response to appeals filed by two sugarcane refining companies.

## A Complicated Relationship

The prospects for U.S.-Cuba agricultural trade depend on what policy measures the Cuban Government takes to foster further economic growth and development. A status quo scenario, in which the Government does little to modify its economic policies to complement the updated U.S. policy approach, is likely to result in some growth in U.S. agricultural exports to Cuba. U.S. exporters are uncertain about the extent to which the Cuban Government will decentralize the decisionmaking process for agricultural imports from the United States. Currently, all such imports must be routed through the government-operated Empresa Comercializadora de Alimentos (ALIMPORT—Food Trading Company), while agricultural imports from other supplying countries have other options (Gonzalez, 2013; Urban, 2015). However, the Cuban Government already has made some of its agricultural policies more market based, replacing large state farms with smaller cooperative production units, allowing the development of farmers' markets and at least one wholesale market for farmers, and securing foreign investment for the sugar sector (Messina, 2015; Kurtz-Nicholl, 2011; Miroff, 2012; Frank, 2014).

A scenario featuring a broader opening of the Cuban economy to foreign trade and investment is likely to lead to more sustained growth of U.S.-Cuba agricultural trade, particularly if such an opening spurs income growth and the expansion of sectors that rely on imports, such as tourism, restaurants, food services, food manufacturing, and livestock production. The extent to which the Cuban Government maintains control over the economy will influence the pace of these changes. If the Government maintains a monopoly on official consumer and investment lending, for instance, the resulting allocation of financial capital may be inefficient and hamper economic growth. In this scenario, trade and investment still involve considerable startup costs, including time. Larger companies and investors are likely to have the resources necessary to navigate this process. Thus, the benefits of expanded trade and investment may accrue to larger firms with international experience and deeper pockets.

Still, the tourist economy and perhaps even the retirement economy are likely to expand in this scenario, as Cuba cultivates a reputation for being a safe place to visit and invest. Capital controls and the dual exchange rate would still limit the benefits that the average Cuban receives from trade and investment. In March 2014, the Cuban Government published the procedures that it will use to eliminate the dual exchange rate, but the precise date for implementing these plans has not yet been announced (Morris, 2015).

Alternatively, the Cuban Government could pursue more open trade and investment policies while favoring select groups currently or formerly associated with the Government. Tourism and imports would expand in this scenario, but exporters and investors would need to work through these select groups. Cuba's dual exchange rate would further allow these groups to capture many of the gains from trade. Large U.S. firms with experience in similar economies are likely to find that they can trade and invest in Cuba in this scenario. The extent to which this new economic activity raises the incomes of Cuba's broader population would determine the impact of such growth on agricultural imports, particularly those of higher value.

The availability of credit will limit the pace at which the Cuban economy and Cuba's agricultural trade grow. In August 2014, Moody's lowered the credit rating for Cuba's sovereign debt from Caa1 to Caa2, due to concerns about the soundness of the Venezuelan economy—which supplies petroleum to Cuba under favorable terms of financing—and concerns about succession planning

for Cuba's leadership (Tamayo, 2014). All three of the "Caa" categories (Caa1, Caa2, and Caa3) are used to indicate sovereign debt that is of low quality and high credit risk. Given this perception of low creditworthiness, a boom-and-bust cycle—in which generous amounts of lending foster rapid growth in agricultural and nonagricultural imports, followed by difficulties in repaying these loans—seems unlikely.

Absent the election and inauguration of a democratically elected government in Cuba, which would trigger the Helms-Burton Act's procedures for suspending and then ending the U.S. economic embargo on Cuba, further congressional action is needed to define the policy framework for establishing a more normal economic relationship with Cuba. Actions that might stimulate U.S. agricultural exports to Cuba include a loosening of restrictions on private-sector credit for Cuban purchases of U.S. agricultural products and allowing Cuba to export products (agricultural and nonagricultural) to the United States, which would enable Cuba to accumulate the foreign exchange needed to import more.

Over the long term, fostering growth in U.S.-Cuba agricultural trade hinges on building a foundation for a two-way relationship in trade and investment and then creating the trust to sustain that relationship. For agricultural trade, that foundation does not yet exist as of now. While the United States over the past 15 years has quickly reestablished itself as one of Cuba's leading suppliers of agricultural imports, the updated U.S. policy approach to Cuba so far provides scant opportunities for Cuba to export agricultural products to the United States. Over the next 15 years, the challenge will be to provide more balanced opportunities for U.S.-Cuba agricultural trade and to continue to build U.S. and Cuban confidence in the emerging commercial relationship.

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