

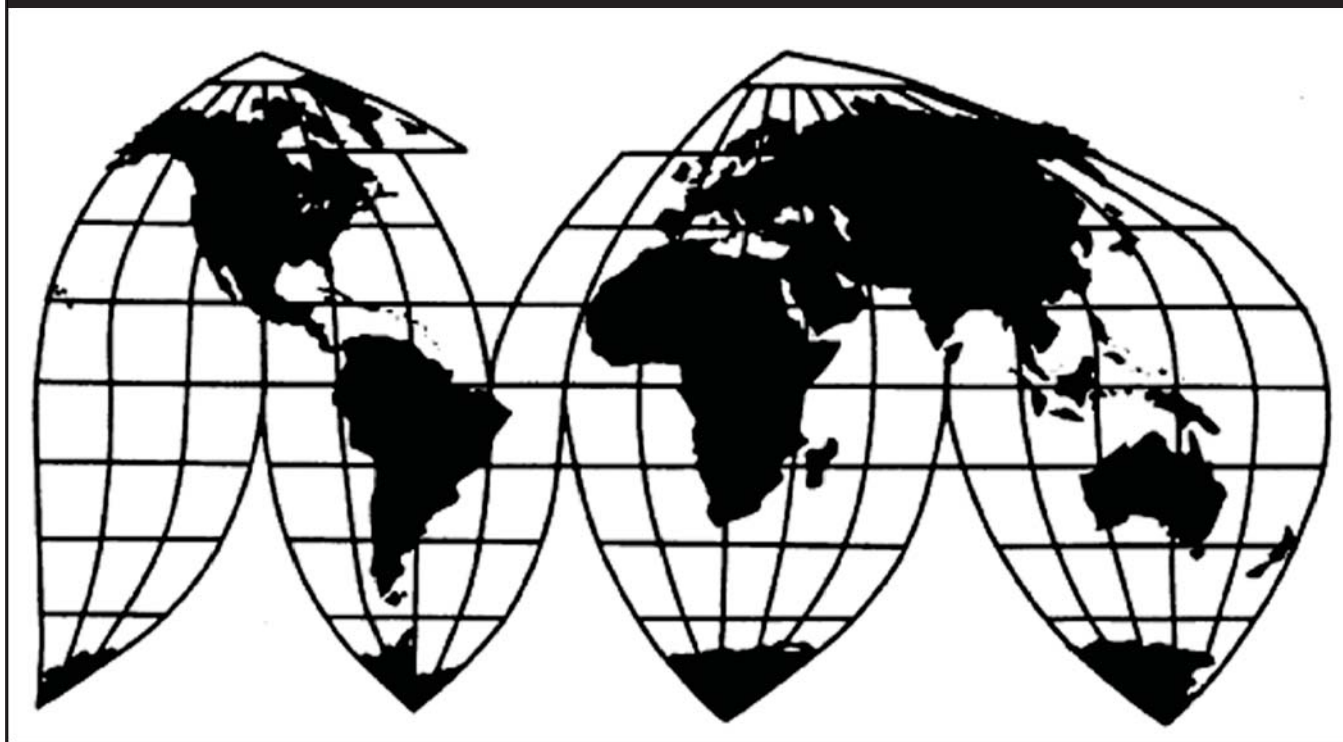
# **Citric Acid and Certain Citrate Salts from Canada and China**

Investigation Nos. 701-TA-456 and 731-TA-1151-1152 (Review)

**Publication 4538**

**June 2015**

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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---

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Jeffrey Clark, Industry Analyst

Cindy Cohen, Economist

Jennifer Brinckhaus, Accountant

Wanda Tolson, Statistician

John Henderson, Attorney

Elizabeth Haines, Supervisory Investigator

Address all communications to  
Secretary to the Commission  
United States International Trade Commission  
Washington, DC 20436

# **U.S. International Trade Commission**

Washington, DC 20436  
*www.usitc.gov*

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.





## UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-456 and 731-TA-1151-1152 (Review)

Citric Acid and Certain Citrate Salts from Canada and China

### DETERMINATION

On the basis of the record<sup>1</sup> developed in the subject five-year reviews, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930, that revocation of the countervailing duty order on citric acid and certain citrate salts from China and the antidumping duty orders on citric acid and certain citrate salts from China and Canada would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

### BACKGROUND

The Commission, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. § 1675(c)), instituted these reviews on April 1, 2014 (79 F.R. 18311) and determined on July 7, 2014 that it would conduct full reviews (79 F.R. 42049, July 18, 2014). Notice of the scheduling of the Commission’s reviews and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* on November 14, 2014 (79 F.R. 68299). The hearing was held in Washington, DC, on March 26, 2015, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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<sup>1</sup> The record is defined in sec. 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR § 207.2(f)).



## Views of the Commission

Based on the record in these five-year reviews, we determine under section 751(c) of the Tariff Act of 1930, as amended (“the Tariff Act”), that revocation of the antidumping duty orders on citric acid and certain citrate salts (“CACCS”) from Canada and China and the countervailing duty order on CACCS from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

### I. Background

In May 2009, the Commission found that an industry in the United States was materially injured by reason of imports of CACCS from Canada and China.<sup>1</sup> The U.S. Department of Commerce (“Commerce”) issued antidumping duty orders covering the subject merchandise from Canada and China on May 29, 2009,<sup>2</sup> and issued a countervailing duty order covering the subject merchandise from China on the same day.<sup>3</sup>

The Commission instituted these reviews on April 1, 2014.<sup>4</sup> The Commission received a joint response to the notice of institution from three U.S. producers of CACCS -- Archer Daniels Midland Company (“ADM”), Cargill, Incorporated (“Cargill”), and Tate & Lyle Ingredients Americas LLC (“Tate & Lyle”) (collectively, “Domestic Producers”) -- and found that the response of each of these domestic producers was individually adequate. On July 7, 2014, the Commission found that the domestic interested party group response was adequate because these three companies accounted for all U.S. CACCS production.<sup>5</sup>

The Commission also received a response concerning the antidumping duty order on CACCS from Canada filed jointly by Jungbunzlauer Canada Inc., a producer and exporter of CACCS in Canada, and Jungbunzlauer Inc., a U.S. importer of CACCS (collectively, “JBL”). Because the Commission received adequate individual responses from the JBL entities, which accounted for all production of CACCS in Canada, the Commission unanimously determined on July 7, 2014 that the respondent interested party group response was adequate for the review pertaining to the order on CACCS from Canada and determined to conduct a full review of that order.<sup>6</sup>

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<sup>1</sup> *Citric Acid and Certain Citrate Salts from Canada and China*, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final), USITC Pub. 4076 at 1 (May 2009) (“*Original Determinations*”).

<sup>2</sup> *Citric Acid and Certain Citrate Salts from Canada and the People’s Republic of China: Antidumping Duty Orders*, 74 Fed. Reg. 25703 (May 29, 2009).

<sup>3</sup> *Citric Acid and Certain Citrate Salts from the People’s Republic of China: Notice of Countervailing Duty Order*, 74 Fed. Reg. 25705 (May 29, 2009).

<sup>4</sup> *Citric Acid and Certain Citrate Salts from Canada and China; Institution of Five-Year Reviews*, 79 Fed. Reg. 18311 (Apr. 1, 2014).

<sup>5</sup> Explanation of Commission Determinations on Adequacy (EDIS Document No. 538648).

<sup>6</sup> Explanation of Commission Determinations on Adequacy (EDIS Document No. 538648).

With respect to the reviews of the antidumping and countervailing duty orders on CACCS from China, no respondent interested party filed a response to the notice of institution, and the Commission determined that the respondent interested party group was inadequate. The Commission determined on July 7, 2014 to conduct full reviews of the orders on CACCS from China in order to promote administrative efficiency in light of its decision to conduct a full review with respect to the order on CACCS from Canada.<sup>7</sup>

The Commission received prehearing and posthearing submissions filed jointly by ADM, Cargill, and Tate & Lyle. The Commission also received prehearing and posthearing submissions from JBL.<sup>8</sup> Representatives of ADM, Cargill, and Tate & Lyle, as well as JBL, appeared at the Commission's hearing accompanied by counsel.

U.S. industry data are based on the questionnaire responses of three U.S. producers that are believed to account for all domestic production of CACCS in 2013.<sup>9</sup> U.S. import data and related information are based on Commerce's official import statistics, proprietary Customs data, and the questionnaire responses of 19 U.S. importers of CACCS that accounted for \*\*\* percent of total subject imports during 2013, including 100 percent of subject imports from Canada during 2013 and \*\*\* percent of subject imports from China during 2013.<sup>10</sup> Foreign industry data and related information are based on the questionnaire responses of one producer of CACCS in Canada, accounting for all production and exports of CACCS in Canada. No producer or exporter from China responded to the Commission's questionnaires.<sup>11</sup>

## II. Domestic Like Product and Industry

### A. Domestic Like Product

In making its determination under section 751(c) of the Tariff Act, the Commission defines the "domestic like product" and the "industry."<sup>12</sup> The Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation under this subtitle."<sup>13</sup> The Commission's practice in five-year reviews is to examine the domestic like product definition from the original

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<sup>7</sup> Explanation of Commission Determinations on Adequacy (EDIS Document No. 538648).

<sup>8</sup> No importer, exporter, or foreign producer of CACCS from China participated in these reviews or appeared at the Commission's hearing.

<sup>9</sup> Confidential Report ("CR") at I-25; Public Report ("PR") at I-19.

<sup>10</sup> CR at I-12, I-26; PR at I-10, I-20.

<sup>11</sup> CR at I-12; PR at I-10.

<sup>12</sup> 19 U.S.C. § 1677(4)(A).

<sup>13</sup> 19 U.S.C. § 1677(10); *see, e.g., Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996); *Torrington Co. v. United States*, 747 F. Supp. 744, 748-49 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991); *see also* S. Rep. No. 249, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 90-91 (1979).

investigation and consider whether the record indicates any reason to revisit the prior findings.<sup>14</sup>

Commerce has defined the imported merchandise within the scope of the orders under review as follows:

{A}ll grades and granulation sizes of citric acid, sodium citrate, and potassium citrate in their unblended forms, whether dry or in solution, and regardless of packaging type. The scope also includes blends of citric acid, sodium citrate, and potassium citrate; as well as blends with other ingredients, such as sugar, where the unblended form(s) of citric acid, sodium citrate, and potassium citrate constitute 40 percent or more, by weight, of the blend. The scope of this order also includes all forms of crude calcium citrate, including dicalcium citrate monohydrate, and tricalcium citrate tetrahydrate, which are intermediate products in the production of citric acid, sodium citrate, and potassium citrate. The scope of this order does not include calcium citrate that satisfies the standards set forth in the United States Pharmacopeia and has been mixed with a functional excipient, such as dextrose or starch, where the excipient constitutes at least 2 percent, by weight, of the product. The scope of this order includes the hydrous and anhydrous forms of citric acid, the dihydrate and anhydrous forms of sodium citrate, otherwise known as citric acid sodium salt, and the monohydrate and monopotassium forms of potassium citrate. Sodium citrate also includes both trisodium citrate and monosodium citrate which are also known as citric acid trisodium salt and citric acid monosodium salt, respectively....<sup>15</sup>

Citric acid, sodium citrate, and potassium citrate are chemical products used in the production and formulation of a wide variety of foods, beverages, pharmaceuticals, and cosmetics, as well as commercial and household products, including detergents and metal cleaners, and in textile finishing treatments and other industrial applications.<sup>16</sup>

In the original investigations, the Commission found no clear dividing lines among domestically produced products corresponding to the scope of the investigations based on

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<sup>14</sup> See, e.g., *Internal Combustion Industrial Forklift Trucks from Japan*, Inv. No. 731-TA-377 (Second Review), USITC Pub. 3831 at 8-9 (Dec. 2005); *Crawfish Tail Meat from China*, Inv. No. 731-TA-752 (Review), USITC Pub. 3614 at 4 (July 2003); *Steel Concrete Reinforcing Bar from Turkey*, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

<sup>15</sup> *Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China: Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders*, 79 Fed. Reg. 45763 (August 6, 2014); July 30, 2014 Commerce memorandum from Christian Marsh to Paul Piquado entitled "*Issues and Decision Memorandum for the Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders on Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China*," at 2 (EDIS Document No. 556471).

<sup>16</sup> CR at I-20; PR at I-16.

chemical and physical form, grade, or product type. It stated that the physical appearance of these products may have varied according to such forms or grades, but all had similar chemical compositions. Although observing that citric acid, sodium citrate, and potassium citrate were not substitutable in all applications, it found that they were used in an overlapping manner in some of the same types of end-use products as buffers, acidulants, and preservatives. The Commission noted that all domestic producers asserted that citric acid, sodium citrate, and potassium citrate were part of the same domestic like product and that industry studies treated them as part of a single industry. Citric acid, sodium citrate, and potassium citrate were produced at overlapping manufacturing facilities by the same employees, at least for the early production stages. The Commission noted that there were some differences in price based on chemical and physical form and grade. Accordingly, and in the absence of any contrary arguments, the Commission defined one domestic like product consisting of citric acid (whether in crude form as calcium citrate or in finished form), sodium citrate, and potassium citrate in all chemical and physical forms and grades.<sup>17</sup>

In these reviews, both Domestic Producers and JBL have stated that they agree with the Commission's definition of the domestic like product in the original investigations,<sup>18</sup> and no party has requested the Commission to define the like product differently. There is no new information obtained during these reviews that would suggest any reason to revisit the Commission's domestic like product definition from the original determinations.<sup>19</sup> Accordingly, we define a single domestic like product consisting of citric acid (whether in crude form as calcium citrate or in finished form), sodium citrate, and potassium citrate in all chemical and physical forms and grades.

## **B. Domestic Industry**

Section 771(4)(A) of the Tariff Act defines the relevant industry as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."<sup>20</sup> In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

In the original investigations, the Commission defined the domestic industry as consisting of all domestic producers of citric acid and citrate salts (*i.e.*, ADM, Cargill, and Tate &

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<sup>17</sup> *Original Determinations*, USITC Pub. 4076, at 7-9.

<sup>18</sup> Domestic Producers' Response to the Notice of Institution at 35 (EDIS Document No. 532978); JBL's Response to the Notice of Institution at 27 (EDIS Document No. 532927).

<sup>19</sup> *See generally* CR at I-19 to I-24; PR at I-16 to I-19.

<sup>20</sup> 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 are applicable to the entire subtitle containing the antidumping and countervailing duty laws, including 19 U.S.C. §§ 1675 and 1675a. *See* 19 U.S.C. § 1677.

Lyle).<sup>21</sup> In these reviews, both Domestic Producers and JBL have stated that they agree with the Commission's definition of the domestic industry in the original investigations.<sup>22</sup> There are no related party issues in these reviews. We accordingly define the domestic industry to include all domestic producers of the domestic like product.

### III. Cumulation

#### A. Legal Standard

With respect to five-year reviews, section 752(a) of the Tariff Act provides as follows: the Commission may cumulatively assess the volume and effect of imports of the subject merchandise from all countries with respect to which reviews under section 1675(b) or (c) of this title were initiated on the same day, if such imports would be likely to compete with each other and with domestic like products in the United States market. The Commission shall not cumulatively assess the volume and effects of imports of the subject merchandise in a case in which it determines that such imports are likely to have no discernible adverse impact on the domestic industry.<sup>23</sup>

Cumulation therefore is discretionary in five-year reviews, unlike original investigations, which are governed by section 771(7)(G)(i) of the Tariff Act.<sup>24</sup> The Commission may exercise its discretion to cumulate, however, only if the reviews are initiated on the same day, the Commission determines that the subject imports are likely to compete with each other and the domestic like product in the U.S. market, and imports from each such subject country are not likely to have no discernible adverse impact on the domestic industry in the event of revocation. Our focus in five-year reviews is not only on present conditions of competition, but also on likely conditions of competition in the reasonably foreseeable future.

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<sup>21</sup> *Original Determinations*, USITC Pub. 4076, at 11. In the original investigations, the Commission stated that one domestic producer was a related party because it imported subject merchandise from \*\*\*, but found that appropriate circumstances did not exist to exclude it from the domestic industry. *Original Determinations*, USITC Pub. 4076, at 11 n.47.

<sup>22</sup> Domestic Producers' Response to the Notice of Institution at 35 (EDIS Document No. 532978); JBL's Response to the Notice of Institution at 27 (EDIS Document No. 532978).

<sup>23</sup> 19 U.S.C. § 1675a(a)(7).

<sup>24</sup> 19 U.S.C. § 1677(7)(G)(i); *see also, e.g., Nucor Corp. v. United States*, 601 F.3d 1291, 1293 (Fed. Cir. 2010) (Commission may reasonably consider likely differing conditions of competition in deciding whether to cumulate subject imports in five-year reviews); *Allegheny Ludlum Corp. v. United States*, 475 F. Supp. 2d 1370, 1378 (Ct. Int'l Trade 2006) (recognizing the wide latitude the Commission has in selecting the types of factors it considers relevant in deciding whether to exercise discretion to cumulate subject imports in five-year reviews); *Nucor Corp. v. United States*, 569 F. Supp. 2d 1328, 1337-38 (Ct. Int'l Trade 2008).

In the original investigations, the Commission cumulated subject imports from Canada and China. The Commission stated that there was considerable overlap in the chemical forms supplied to the U.S. market by the domestic industry and the subject producers from both countries, in that all sources supplied large quantities of citric acid to the U.S. market throughout the period of investigation (“POI”).<sup>25</sup> While overlap was more limited with respect to sales of sodium citrate and potassium citrate, these sales accounted for only a small share of the U.S. market. In terms of physical form, the domestic industry and the subject industries in Canada and China all predominantly supplied anhydrous citric acid to the U.S. market, while overlap for sales of citric acid in monohydrate and solution forms was more limited. Questionnaire respondents reported some differences in quality among the different sources, but the vast majority of respondents reported that subject imports were at least frequently if not always interchangeable with one another and the domestic like product. The Commission stated that CACCS from the United States, Canada, and China was sold for overlapping end uses and was sold to some of the same customers during the POI. Thus, the Commission stated that, although there were some differences in terms of the chemical and physical forms and grades sold, there was considerable overlap among domestic and both subject sources, particularly for anhydrous citric acid, and that the record supported a finding that the domestic like product and subject imports from Canada and China were fungible with each other.<sup>26</sup>

The Commission found that the domestic like product and subject imports from Canada and China competed nationwide, and thus were sold in overlapping geographical markets. It found that CACCS products from domestic sources and both subject sources were sold primarily to end users, but also to distributors, including some of the same end users and distributors. Accordingly, the Commission found an overlap in the channels of distribution for subject imports from Canada and China and the domestic like product. The Commission found that the domestic like product and imports of CACCS from both subject sources were present in the U.S. market in every month of the POI. Thus, the Commission concluded that there was a reasonable overlap of competition between subject imports from Canada and China and between subject imports and the domestic like product.<sup>27</sup>

In these reviews, Domestic Producers argue that the Commission should exercise its discretion to cumulate subject imports from Canada and China.<sup>28</sup> They assert that subject imports from both Canada and China would likely have a discernible adverse impact on the domestic industry in the event of revocation<sup>29</sup> and that the Commission should find that there would likely be a reasonable overlap of competition among subject imports from Canada, subject imports from China, and the domestic like product if the orders were revoked.<sup>30</sup> Domestic Producers argue that there have been no changes in the conditions of competition

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<sup>25</sup> The POI in the original investigations was January 2006 through December 2008.

<sup>26</sup> *Original Determinations*, USITC Pub. 4076, at 12-14.

<sup>27</sup> *Original Determinations*, USITC Pub. 4076, at 14-15.

<sup>28</sup> Domestic Producers’ Prehearing Brief at 17.

<sup>29</sup> Domestic Producers’ Prehearing Brief at 20-21.

<sup>30</sup> Domestic Producers’ Prehearing Brief at 21-26.



since the orders were imposed that would indicate that subject imports from Canada and China should not be cumulated and that any differences in the trends of imports from the two subject sources during the period of review are a result of the imposition of the orders and would disappear if the orders were revoked.<sup>31</sup>

JBL argues that the Commission should not cumulate subject imports from Canada with subject imports from China, asserting that subject imports from Canada are likely to compete under different conditions of competition than subject imports from China.<sup>32</sup> JBL does not argue that imports from Canada would likely have no discernible adverse impact on the domestic industry in the event of revocation of the antidumping duty order<sup>33</sup> and acknowledges that all four criteria in the Commission's analysis of likelihood of a reasonable overlap of competition are satisfied in these reviews.<sup>34</sup>

The statutory threshold for cumulation is satisfied in these reviews, because all reviews were initiated on the same day: April 1, 2014.<sup>35</sup>

## **B. Likelihood of No Discernible Adverse Impact**

The statute precludes cumulation if the Commission finds that subject imports from a country are likely to have no discernible adverse impact on the domestic industry.<sup>36</sup> Neither the statute nor the Uruguay Round Agreements Act ("URAA") Statement of Administrative Action ("SAA") provides specific guidance on what factors the Commission is to consider in determining that imports "are likely to have no discernible adverse impact" on the domestic industry.<sup>37</sup> With respect to this provision, the Commission generally considers the likely volume of subject imports and the likely impact of those imports on the domestic industry within a reasonably foreseeable time if the orders are revoked. Our analysis for each of the subject countries takes into account, among other things, the nature of the product and the behavior of subject imports in the original investigations.

Based on the record in these reviews, we do not find that imports from either of the subject countries would likely have no discernible adverse impact on the domestic industry in the event of revocation.

*Canada.* During the original POI, the quantity of subject imports from Canada increased from \*\*\* dry pounds in 2006 to \*\*\* dry pounds in 2007 and \*\*\* dry pounds in 2008.<sup>38</sup> In these

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<sup>31</sup> Domestic Producers' Prehearing Brief at 26-27; Domestic Producers' Posthearing Brief, Answers to Questions from the Commission at 21-22 (response to Commissioners Johanson and Schmidlein).

<sup>32</sup> JBL's Prehearing Brief at 21-27.

<sup>33</sup> Transcript of March 26, 2015 Hearing ("Hearing Tr.") at 175-176 (Waite); JBL's Posthearing Brief, Exh. 1 at 31-32 (response to Commissioner Schmidlein).

<sup>34</sup> JBL's Prehearing Brief at 16-21; Hearing Tr. at 155-156 (Waite).

<sup>35</sup> *Initiation of Five-Year "Sunset" Review*, 79 Fed. Reg. 18279 (April 1, 2014).

<sup>36</sup> 19 U.S.C. § 1675a(a)(7).

<sup>37</sup> SAA, H.R. Rep. No. 103-316, vol. I at 887 (1994).

<sup>38</sup> INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

reviews, the quantity of subject imports from Canada increased from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2010, then declined to \*\*\* dry pounds in 2011, increased to \*\*\* dry pounds in 2012, and then declined to \*\*\* dry pounds in 2013.<sup>39</sup>

JBL Canada is the sole producer of CACCS in Canada.<sup>40</sup> JBL Canada's CACCS plant is in Port Colborne, Ontario, located just across the border from Buffalo, New York.<sup>41</sup> Annual production capacity for JBL Canada increased from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2013.<sup>42</sup> Capacity utilization increased from \*\*\* percent in 2009 to a period high of \*\*\* percent in 2011, then declined to \*\*\* percent in 2013.<sup>43</sup> Total CACCS exports from Canada increased from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2013.<sup>44</sup> Total exports as a percentage of Canadian producers' total shipments ranged between \*\*\* percent and \*\*\* percent during the full years of the period of review.<sup>45</sup> Canadian exports to the United States as a percentage of total shipments declined from a period high of \*\*\* percent in 2010 to a period low of \*\*\* percent in 2013.<sup>46</sup> The major export markets for JBL Canada outside of the United States are \*\*\*.<sup>47</sup>

Given the continued presence of subject imports from Canada in the U.S. market during the period of review, the increase in JBL Canada's production capacity, and its high degree of export orientation, we do not find that subject imports from Canada would likely have no discernible adverse impact on the domestic industry if the order were revoked.

*China.* During the original POI, the quantity of subject imports from China increased from 158.9 million dry pounds in 2006 to 180.1 million dry pounds in 2007, and 193.7 million dry pounds in 2008.<sup>48</sup> In these reviews, the quantity of subject imports from China increased

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<sup>39</sup> CR/PR at Table IV-1. The quantity of subject imports from Canada was \*\*\* dry pounds in January-September ("interim") 2013, and \*\*\* dry pounds in interim 2014. *Id.*

<sup>40</sup> CR at IV-16; PR at IV-10.

<sup>41</sup> Hearing Tr. at 144 (Grant).

<sup>42</sup> CR/PR at Table IV-11. JBL's capacity was \*\*\* dry pounds in 2009 and 2010, \*\*\* dry pounds in 2011, and \*\*\* dry pounds in 2012 and 2013. It was \*\*\* dry pounds in interim 2013 and \*\*\* dry pounds in interim 2014. *Id.*

<sup>43</sup> CR/PR at Table IV-11. Capacity utilization was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>44</sup> CR/PR at Table IV-11. Total exports were \*\*\* dry pounds in 2009, \*\*\* dry pounds in 2010, \*\*\* dry pounds in 2011, \*\*\* dry pounds in 2012, and \*\*\* dry pounds in 2013. They were \*\*\* dry pounds in interim 2013 and \*\*\* dry pounds in interim 2014. *Id.*

<sup>45</sup> CR/PR at Table IV-11. Exports as a percentage of total shipments were \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. They were \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>46</sup> CR/PR at Table IV-11. Export shipments to the United States as a percentage of total shipments were \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. They were \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>47</sup> CR at IV-17 n.7; PR at IV-10 n.7.

<sup>48</sup> INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2010 and \*\*\* dry pounds in 2011, then declined to \*\*\* dry pounds in 2012 and increased to \*\*\* dry pounds in 2013.<sup>49</sup>

No producers in China responded to the Commission's questionnaire, so data on the Chinese industry are based on industry studies and information provided by the parties. Industry data indicate that the Chinese CACCS industry is the world's largest, with over two-thirds of global capacity. The Chinese industry has approximately 20 major producers, with a total annual citric acid capacity of \*\*\* metric tons (equivalent to \*\*\* pounds). Exports account for more than \*\*\* percent of Chinese industry production, and major markets include Europe, the United States, Japan, and Southeast Asia.<sup>50</sup>

According to IHS, an industry analysis firm, the citric acid capacity of the Chinese CACCS industry approximately \*\*\* between 2008 and 2012, increasing from a reported 928,300 metric tons in 2008 to \*\*\* metric tons in 2012, with Chinese industry citric acid capacity in 2012 \*\*\*.<sup>51</sup> The capacity utilization of the Chinese industry was estimated at \*\*\* percent in 2012, leaving unused capacity at a level \*\*\*. According to Domestic Producers, all major Chinese producers of citric acid have either expanded capacity or announced plans to expand capacity by the end of 2015.<sup>52</sup>

Given the continued presence of subject imports from China in the U.S. market during the period of review and the export orientation and increase in production capacity of the Chinese CACCS industry, we do not find that subject imports from China would likely have no discernible adverse impact on the domestic industry if the orders were revoked.

### C. Likelihood of a Reasonable Overlap of Competition

The Commission generally has considered four factors intended to provide a framework for determining whether subject imports compete with each other and with the domestic like product.<sup>53</sup> Only a "reasonable overlap" of competition is required.<sup>54</sup> In five-year reviews, the

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<sup>49</sup> CR/PR at Table IV-1. The quantity of subject imports from China was \*\*\* dry pounds in interim 2013, and \*\*\* dry pounds in interim 2014. *Id.*

<sup>50</sup> CR at II-8, IV-22; PR at II-5, IV-11.

<sup>51</sup> According to IHS, global consumption of citric acid in 2012 was 1.7 million metric tons, while Chinese citric acid capacity was \*\*\* metric tons. IHS Chemical Economics Handbook, February 2013, at 6 (EDIS Document No. 556555).

<sup>52</sup> CR at IV-22 and n. 12, IV-23 to IV-24; PR at IV-11 and n.12, IV-12.

<sup>53</sup> The four factors generally considered by the Commission in assessing whether imports compete with each other and with the domestic like product are as follows: (1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality-related questions; (2) the presence of sales or offers to sell in the same geographical markets of imports from different countries and the domestic like product; (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and (4) whether subject imports are simultaneously present in the market with one another and the domestic like product. *See, e.g., Wieland Werke, AG v. United States*, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

relevant inquiry is whether there likely would be competition even if none currently exists because the subject imports are absent from the U.S. market.<sup>55</sup>

*Fungibility.* In comparisons of the interchangeability of subject imports from Canada, subject imports from China, and the domestic like product, all U.S. producers reported that CACCS from each of these three sources is always interchangeable, while a majority of U.S. importers and U.S. purchasers reported that CACCS from each of these three sources is always or frequently interchangeable.<sup>56</sup>

Purchasers rated the domestic like product and subject imports from Canada to be comparable for all 15 factors surveyed. Purchasers rated the domestic like product and subject imports from China to be comparable for 12 of 15 factors and rated the domestic like product as superior in three factors. Purchasers rated subject imports from Canada and subject imports from China to be comparable in 13 of 15 factors and rated subject imports from Canada as superior in two factors.<sup>57</sup>

JBL Canada began producing trisodium citrate at its Ontario plant in October 2011 and began exporting it to the United States. Accordingly, producers in Canada, China, and the United States now have the ability to supply the U.S. market with sodium citrate as well as citric acid.<sup>58</sup>

*Channels of Distribution.* U.S. producers' commercial shipments went primarily to end users, with over 80 percent of shipments going to end users in every year of the period of review. Most U.S. shipments of imports from China likewise went to end users. U.S. shipments of imports from Canada \*\*\*.<sup>59</sup>

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(...Continued)

<sup>54</sup> See *Mukand Ltd. v. United States*, 937 F. Supp. 910, 916 (Ct. Int'l Trade 1996); *Wieland Werke*, 718 F. Supp. at 52 ("Completely overlapping markets are not required."); *United States Steel Group v. United States*, 873 F. Supp. 673, 685 (Ct. Int'l Trade 1994), *aff'd*, 96 F.3d 1352 (Fed. Cir. 1996). We note, however, that there have been investigations where the Commission has found an insufficient overlap in competition and has declined to cumulate subject imports. See, e.g., *Live Cattle from Canada and Mexico*, Inv. Nos. 701-TA-386 and 731-TA-812-13 (Preliminary), USITC Pub. 3155 at 15 (Feb. 1999), *aff'd sub nom. Ranchers-Cattlemen Action Legal Foundation v. United States*, 74 F. Supp. 2d 1353 (Ct. Int'l Trade 1999); *Static Random Access Memory Semiconductors from the Republic of Korea and Taiwan*, Inv. Nos. 731-TA-761-62 (Final), USITC Pub. 3098 at 13-15 (Apr. 1998).

<sup>55</sup> See generally, *Cheflin Corp. v. United States*, 219 F. Supp. 2d 1313, 1314 (Ct. Int'l Trade 2002).

<sup>56</sup> CR/PR at Table II-9.

<sup>57</sup> CR/PR at Table II-8. A majority or plurality of purchasers rated the domestic like product as superior to subject imports from China in delivery time, technical support/service, and U.S. transportation costs. A plurality of purchasers rated subject imports from Canada as superior to subject imports from China in delivery time and U.S. transportation costs. *Id.*

<sup>58</sup> Hearing Tr. at 38 (O'Dwyer); 146-147 (Grant); *Original Determinations*, USITC Pub. 4076, at 12 n.58.

<sup>59</sup> CR at II-2; PR at II-1; CR/PR at Table II-1.

*Geographic Overlap.* During the period of review, U.S. producers and U.S. importers of CACCS from Canada served every geographic region in the United States, while U.S. importers of product from China served every geographic region in the continental United States.<sup>60</sup>

*Simultaneous Presence in Market.* CACCS from both Canada and China was present in the U.S. market during every month from January 2009 to September 2014, and the domestic like product was present in the market in every quarterly period in the period of review.<sup>61</sup>

*Conclusion.* The information in the record warrants a finding that imports from each country are sufficiently fungible with the domestic like product and each other. A majority of market participants found that the domestic like product and subject imports from both subject countries were always or frequently interchangeable. The information in the record also indicates that there was an overlap in channels of distribution among subject imports from Canada, subject imports from China, and the domestic like product in shipments in the U.S. market to end users. Subject imports and the domestic like product also overlapped in geographic markets. The domestic like product and subject imports from Canada and China were present in the U.S. market throughout the period of review.

In light of the foregoing, as well as the lack of any contrary argument on this issue, we conclude that upon revocation there would likely be a reasonable overlap of competition between the domestic like product and imports from both subject countries and between imports from each subject country.

#### **D. Likely Conditions of Competition**

In determining whether to exercise our discretion to cumulate the subject imports, we assess whether subject imports from Canada and China would likely compete under similar or different conditions of competition.

Domestic Producers argue that there has been no significant change in the conditions of competition since the original POI and that subject imports from Canada and subject imports from China would compete under similar conditions of competition in the event of revocation, as they did during the original POI.<sup>62</sup> JBL argues that there are a number of significant differences between the two subject industries indicating that they would compete under different conditions of competition in the event of revocation.<sup>63</sup>

There are a number of similarities between the CACCS industries in Canada and China. CACCS producers in both subject countries have an economic incentive to run their plants continuously at a high capacity utilization rate and a further incentive to export CACCS to maintain continuous production and a high capacity utilization rate.<sup>64</sup> The industries in both

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<sup>60</sup> CR at II-3; PR at II-2; CR/PR at Table II-2.

<sup>61</sup> CR at IV-13; PR at IV-7; CR/PR at Tables V-3 through V-9.

<sup>62</sup> Domestic Producers' Prehearing Brief at 26-27.

<sup>63</sup> JBL's Posthearing Brief at 2-8.

<sup>64</sup> A witness from JBL Canada (Ms. Grant), as well as witnesses from domestic producers ADM and Cargill (Messrs. Cuddy, Warner, and Aud), testified to the importance of continuous production for CACCS producers. Hearing Tr. at 17 (Cuddy); 22, 135 (Warner); 35 (Aud); 146 (Grant).

subject countries are highly export-oriented.<sup>65</sup> The industries in both Canada and China increased capacity during the period of review.<sup>66</sup> Subject imports from both countries have maintained a presence in the U.S. market during the period of review (albeit at lower levels under the discipline of the orders than during the original POI),<sup>67</sup> indicating that subject producers from both countries remain interested in the U.S. market. Given that the U.S. CACCS market is one of the largest in the world<sup>68</sup> and that \*\*\* reported that prices are higher in the U.S. market than in other export markets,<sup>69</sup> CACCS producers in both subject countries would have an economic incentive to increase shipments to the U.S. market in the event of revocation.<sup>70</sup>

Moreover, as previously discussed, and as JBL has acknowledged, subject imports from Canada and China are fungible, are present in the same geographic markets, are sold through common or similar channels of distribution, and are simultaneously present in the market.<sup>71</sup> U.S. purchasers reported that subject imports from both subject countries are always or frequently interchangeable and are comparable in almost all respects.<sup>72</sup> Thus, JBL has not argued, and we do not find, any significant differences in product mix or quality that would likely result in different conditions of competition between the two subject industries upon revocation.

JBL asserts that there are a number of specific differences between the subject industry in Canada and the subject industry in China that would likely result in subject imports from Canada and China competing under different conditions of competition in the event of revocation: different volume trends during the period of review; different price trends during the period of review; different industry structures; differences in capacity, capacity utilization, capacity growth, and unused capacity; differences in trade barriers in other export markets;

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<sup>65</sup> Total exports as a percentage of JBL Canada's total shipments ranged between \*\*\* percent and \*\*\* percent during the full years of the period of review. CR/PR at Table IV-11. Available information indicates that exports account for more than \*\*\* percent of Chinese industry production. CR at II-8, IV-22; PR at II-5, IV-11.

<sup>66</sup> CR at II-6, IV-22 n. 12; PR at II-4, IV-11 n.12.

<sup>67</sup> CR/PR at Table I-1. The volume of subject imports from Canada during each year of the period of review was below the peak volume levels observed during 2007 and 2008 of the original POI, while the volume of subject imports from China during each year of the period of review was far below the levels observed during the original POI. CR/PR at Table I-1; INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

<sup>68</sup> CR at IV-29; PR at IV-16; Hearing Tr. at 147 (Grant).

<sup>69</sup> CR at IV-28; PR at IV-16; Hearing Tr. at 115 (Kotula).

<sup>70</sup> For Vice Chairman Pinkert's views on the relevant criteria for the exercise of discretion not to cumulate in a five-year review, see *Polyethylene Terephthalate Film, Sheet, and Strip from Brazil, China, and the United Arab Emirates*, Inv. Nos. 731-TA-1131-1132, and 1134 (Review), USITC Pub. 4512 (Jan. 2015) (the "PET Film reviews"), at 18 n.104.

<sup>71</sup> JBL's Prehearing Brief at 16-21; Hearing Tr. at 155-156 (Waite).

<sup>72</sup> CR/PR at Tables II-8, II-9.

and possible circumvention of the orders by exporters/importers of subject merchandise from China.<sup>73</sup>

With respect to possible differences in volume and price trends between subject imports from the two sources, we find that some of the apparent differences in volume and price trends during the period of review are attributable to the discipline of the orders. Moreover, the record does not indicate that any alleged differences in volume and price trends during the period of review reflect actual differences in conditions of competition that would likely be present in the event of revocation.<sup>74</sup> As noted above, subject imports from both subject countries remained in the U.S. market during the period of review at lower volumes than during the original POI. JBL asserts that different price trends between subject imports from the two subject countries are demonstrated by different trends in average unit values (AUVs) between subject imports from Canada and subject imports from China.<sup>75</sup> However, Domestic Producers assert that the AUV data with respect to subject imports from China are \*\*\* and argue that the Commission should rely instead on the Commission's pricing data, which they assert show comparable price trends between subject imports from Canada and subject

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<sup>73</sup> JBL's Posthearing Brief at 2-8. With respect to JBL's argument concerning possible circumvention of the orders by importers/exporters of subject Chinese merchandise, the Commission ordinarily defers to Commerce or Customs when there are issues concerning possible circumvention or transshipment, if either has made such a ruling. *Steel Wire Garment Hangers from Taiwan*, Inv. No. 731-TA-1197 (Final) USITC Pub. 4363 at 6 n.22 (Nov. 2012). Absent such a ruling, the Commission ordinarily does not give weight to unsubstantiated allegations. Here, the record includes Congressional testimony in 2011 by a Customs official stating that an ongoing Customs operation on illegal transshipment of Chinese citric acid had resulted in the identification of \$17 million in unpaid AD/CVD duties and that this operation was continuing, but no indication of any specific ruling by Commerce or Customs. See Domestic Producers' Prehearing Brief at 65-66, and Exh. 29 at 2. We therefore accord limited weight to JBL's circumvention argument to the extent it is even pertinent to our analysis of the likely conditions of competition upon revocation.

<sup>74</sup> JBL has emphasized as an important factor helping to explain the apparent difference in volume trends the difference in the margins that subject imports from Canada and China have received as a result of Commerce's administrative reviews. While subject imports from Canada have received relatively low duty deposit rates in Commerce's administrative reviews, subject imports from China have received higher duty deposit rates. JBL's Prehearing Brief at 23-24; Hearing Tr. at 157-158 (Waite); CR/PR at Tables I-II, I-III and I-IV. Although the duty deposit rates determined by Commerce in its administrative reviews may have appreciably affected the volume trends exhibited by subject imports from Canada and China during the period of review, they are not by themselves determinative of the likely behavior of subject imports from Canada and China in the event of revocation, which is the subject of our inquiry.

<sup>75</sup> JBL's Posthearing Brief at 4-5. JBL argues that the pricing data for subject imports from China are of questionable utility, because they represent a small percentage of subject imports from China. *Id.* at 6. The Commission received questionnaire responses from 19 U.S. importers of CACCS that accounted for \*\*\* percent of subject imports from China during 2013. CR at IV-1; PR at IV-1.

imports from China.<sup>76</sup> We generally view AUV data with caution, because differences in AUVs may reflect differences in product mix or channels of distribution. In addition, given the questions with respect to the accuracy of the AUV data for the subject imports from China, we are unable to conclude that they show significantly different price trends between subject imports from Canada and subject imports from China during the period of review, much less demonstrate that imports from the two subject countries would compete under different conditions of competition in the event of revocation.

We observe that during the original POI, subject imports from Canada and China displayed similar trends as to both volume and price. During the original POI, the quantity of subject imports from Canada increased by \*\*\* percent from 2006 to 2008,<sup>77</sup> while the quantity of subject imports from China increased by 21.9 percent.<sup>78</sup> Moreover, during the original POI, subject imports from Canada undersold the domestic like product in 63.4 percent of quarterly price comparisons (71 of 112), with margins ranging from 0.0 to 29.5 percent, while subject imports from China undersold the domestic like product in 57.1 percent of quarterly price comparisons (68 of 119), with margins ranging from 0.4 to 31.7 percent.<sup>79</sup> Thus, the data from the original POI do not support JBL's argument that subject imports from the two subject countries are likely to compete under different conditions of competition upon revocation.

JBL has also pointed out differences between the two subject industries. There is only one subject producer in Canada, while the available information indicates that there are approximately 20 major CACCS producers in China.<sup>80</sup> There are a number of trade remedy measures in other countries against imports of CACCS from China (including antidumping duty measures on citric acid from China in Brazil, the European Union, India, Russia, Thailand, and Ukraine), while there are no antidumping or countervailing duty measures against imports of CACCS from Canada other than the U.S. antidumping duty order.<sup>81</sup> Additionally, the available information indicates that the Chinese CACCS industry has larger capacity than the Canadian industry,<sup>82</sup> that capacity in the Chinese industry approximately \*\*\* during the period of review

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<sup>76</sup> Domestic Producers' Prehearing Brief at 13 n.63; Domestic Producers' Posthearing Brief, Answers to Questions from the Commission at 33-36 (response to Commissioners Johanson and Schmidtlein).

<sup>77</sup> During the original POI, the quantity of subject imports from Canada increased from \*\*\* dry pounds in 2006 to \*\*\* dry pounds in 2007 and \*\*\* dry pounds in 2008. INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

<sup>78</sup> During the original POI, the quantity of subject imports from China increased from 158.9 million dry pounds in 2006 to 180.1 million dry pounds in 2007 and 193.7 million dry pounds in 2008. INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

<sup>79</sup> CR/PR at Table V-11 n.1.

<sup>80</sup> CR at II-8, IV-22; PR at II-5, IV-11.

<sup>81</sup> CR at IV-24; PR at IV-12. In addition, Colombia and the Eurasian Economic Union (which currently includes Russia, Kazakhstan, Belarus, and Armenia, and was to include Kyrgyzstan as of May 9, 2015), have ongoing antidumping investigations with respect to imports of citric acid from China. *Id.*

<sup>82</sup> The Chinese CACCS industry is reported to be the world's largest, with over two-thirds of global capacity. The Chinese industry has approximately 20 major producers, with a total annual citric (Continued...)



while the capacity of the industry in Canada increased by approximately \*\*\* percent between 2009 and 2013,<sup>83</sup> that the Chinese industry has a much lower capacity utilization rate and a much higher amount of unused capacity than the Canadian industry,<sup>84</sup> and that numerous subject Chinese producers have ongoing projects to further expand capacity,<sup>85</sup> while JBL Canada asserts that it has no plans to expand capacity in the near future.<sup>86</sup> The differences that JBL emphasizes all indicate that the subject industry in China has the incentive and the ability to increase subject import volumes to the U.S. market significantly upon revocation and to compete aggressively in the U.S. market on the basis of price.

Nevertheless, the record also indicates that JBL Canada has the incentive and the ability to increase subject import volumes to the U.S. market significantly upon revocation and to compete aggressively in the U.S. market on the basis of price, as it did during the original POI. JBL Canada built its CACCS plant in Port Colborne, Ontario, directly across the U.S. border from Buffalo, New York, in order to help it serve the North American market, including the U.S. market.<sup>87</sup> JBL acknowledges that the U.S. market is the largest and most important market for JBL Canada.<sup>88</sup> While JBL Canada's exports to the United States as a percentage of its total shipments declined from a period high of \*\*\* percent in 2010 to a period low of \*\*\* percent in 2013, they remained well over \*\*\* percent throughout the entire period of review.<sup>89</sup>

We disagree with JBL's assertion that JBL Canada is a "premium" supplier that competes on the basis of quality and service and does not and would not compete in the U.S. market on

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acid capacity of \*\*\* metric tons (equivalent to \*\*\* pounds). CR at II-8, IV-22 n.12; PR at II-5, IV-11 n.12. By contrast, JBL's production capacity was \*\*\* dry pounds in 2013. CR/PR at Table IV-11.

<sup>83</sup> According to industry analyst IHS, the citric acid capacity of the Chinese industry approximately \*\*\* between 2008 and 2012, increasing from a reported 928,300 metric tons in 2008 to \*\*\* metric tons in 2012. CR at IV-22 n.12; PR at IV-11 n.12. Annual production capacity for JBL Canada increased from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2013. CR/PR at Table IV-11. JBL Canada also \*\*\*. Its capacity in interim 2013 was \*\*\* dry pounds, and its capacity in interim 2014 was \*\*\* dry pounds. CR/PR at Table IV-11; CR at IV-16; PR at IV-10; Hearing Tr. at 148 (Grant).

<sup>84</sup> Capacity utilization of the Chinese industry was estimated at \*\*\* percent in 2012, leaving unused Chinese industry capacity \*\*\*. CR at IV-22 n.12; PR at IV-11 n.12. JBL's capacity utilization increased from \*\*\* percent in 2009 to a period high of \*\*\* percent in 2011, then declined to \*\*\* percent in 2013. CR/PR at Table IV-11.

<sup>85</sup> CR at IV-22 to IV-23; PR at IV-12.

<sup>86</sup> Hearing Tr. at 148 (Grant).

<sup>87</sup> Hearing Tr. at 129 (Hurt); 144 (Grant); 150, 191 (Rainville). Thus, even though the record indicates that the CACCS industry in Canada has less capacity and excess capacity than the CACCS industry in China, the location of JBL Canada's plant near the U.S. border gives JBL Canada a significant advantage over subject Chinese producers in accessing the U.S. market. See Hearing Tr. at 129 (Hurt).

<sup>88</sup> Hearing Tr. at 189-190 (Waite).

<sup>89</sup> CR/PR at Table IV-11. Export shipments to the United States as a percentage of total shipments were \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. They were \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

the basis of price.<sup>90</sup> Purchasers' comparisons of particular product characteristics indicate that subject imports from Canada were comparable with the domestic like product and subject imports from China.<sup>91</sup> We are not persuaded by the AUV data that JBL cites for its assertion that subject imports from Canada have generally had higher prices than the domestic like product during the period of review and would not be priced aggressively if the orders were revoked.<sup>92</sup> The Commission's pricing data showed mixed overselling and underselling by subject imports from Canada during the period of review, but these data reflect prices under the discipline of the order; in any event, the price comparisons during the period of review do not support JBL's characterization that it is a premium supplier.<sup>93</sup>

For the reasons stated above, we find that subject imports from Canada and subject imports from China are likely to compete under similar conditions of competition upon revocation.<sup>94</sup>

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<sup>90</sup> JBL's Prehearing Brief at 43-44; JBL's Posthearing Brief at 10-11; Hearing Tr. at 154-155 (Rainville).

<sup>91</sup> CR/PR at Table II-8.

<sup>92</sup> JBL's Prehearing Brief at 31-34. Indeed, the record indicates differences in product mix between the domestic like product and subject imports from Canada that make reliance on AUV data for these price comparisons questionable. JBL Canada sold a much higher proportion of its sales to the spot market than the domestic industry during the period of review, CR/PR at Table V-2, while the domestic industry sold an \*\*\* percentage of its output in liquid form, as opposed to dry form, than JBL Canada. See Domestic Producers' Posthearing Brief, Answers to Questions from the Commission at 55-56 (response to Commissioner Schmidlein).

<sup>93</sup> CR/PR at Table V-11.

<sup>94</sup> JBL has cited to multiple cases in support of its argument, including the Commission's recent determination in the *PET Film* reviews, in which the Commission determined that subject imports from Brazil would likely compete under different conditions of competition than subject imports from China and the United Arab Emirates (UAE), noting as relevant, *inter alia*, the smaller capacity of the Brazilian PET film industry relative to the Chinese and UAE PET film industries. *PET Film* reviews, USITC Pub. 4512, at 18-22. See JBL's Posthearing Brief, Exhibit 1, at 3-13 (response to multiple Commissioners). The decisions in the Commission's prior reviews were premised on facts specific to the particular reviews and industry involved, yet JBL does not indicate and we cannot discern that the industries in the prior reviews are similar to the CACCS industry. Each Commission injury investigation is *sui generis*, and accordingly, "the Commission's determinations must be based upon an independent evaluation of the factors with respect to the unique economic situation of each product and industry under investigation." *Citrosuco Paulista, S.A., v. United States*, 704 F. Supp. 1075, 1087-1088 (Ct. Int'l Trade 1988).

When the whole record is considered, there are important distinctions between the Commission's prior reviews and the current CACCS reviews. For example, in the *PET Film* reviews, the subject Brazilian PET film producer had a corporate relationship with its U.S. affiliate, a domestic producer, whereby the U.S. affiliate exerted control over any imports into the U.S. market of the only Brazilian PET film producer. *PET Film* reviews, USITC Pub. 4512 at 19-21. By contrast, the record in these reviews does not indicate that JBL Canada has any affiliated U.S. CACCS producer. In addition, the record indicated that the PET film industry in Brazil was much less export-oriented than the subject industries in China and the UAE. *Id.* at 20. By contrast, in these reviews, the record indicates that JBL (Continued...)

## E. Conclusion

In sum, we determine that subject imports from both countries are not likely to have no discernible adverse impact on the domestic industry in the event of revocation and that there would likely be a reasonable overlap of competition between the subject imports from each country and the domestic like product. We also determine that subject imports from Canada and China would be likely to compete under similar conditions of competition upon revocation. Accordingly, for the reasons discussed above, we exercise our discretion to cumulate subject imports from Canada and China.

## IV. Revocation of the Antidumping and Countervailing Duty Orders Would Likely Lead to Continuation or Recurrence of Material Injury Within a Reasonably Foreseeable Time

### A. Legal Standards

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping or countervailing duty order unless: (1) it makes a determination that dumping or subsidization is likely to continue or recur and (2) the Commission makes a determination that revocation of the antidumping or countervailing duty order “would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.”<sup>95</sup> The SAA states that “under the likelihood standard, the Commission will engage in a counterfactual analysis; it must decide the likely impact in the reasonably foreseeable future of an important change in the status quo – the revocation or termination of a proceeding and the elimination of its restraining effects on volumes and prices of imports.”<sup>96</sup> Thus, the likelihood standard is prospective in nature.<sup>97</sup> The U.S. Court of International Trade has found that

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Canada is \*\*\* export-oriented than the CACCS industry in China. Furthermore, in the *PET Film* reviews, the Brazilian producer provided documentation of a corporate strategy under which the U.S. affiliate controlled imports into the U.S. market of the Brazilian producer to ensure that any such imports were consistent with the strategy of focusing on higher-value PET films. *Id.* at 19-20. JBL has not provided any comparable documentation indicating that it uses such a strategy that would significantly constrain its competition in the United States.

<sup>95</sup> 19 U.S.C. § 1675a(a).

<sup>96</sup> SAA at 883-84. The SAA states that “{t}he likelihood of injury standard applies regardless of the nature of the Commission’s original determination (material injury, threat of material injury, or material retardation of an industry). Likewise, the standard applies to suspended investigations that were never completed.” *Id.* at 883.

<sup>97</sup> While the SAA states that “a separate determination regarding current material injury is not necessary,” it indicates that “the Commission may consider relevant factors such as current and likely continued depressed shipment levels and current and likely continued {sic} prices for the domestic like product in the U.S. market in making its determination of the likelihood of continuation or recurrence of material injury if the order is revoked.” SAA at 884.

“likely,” as used in the five-year review provisions of the Act, means “probable,” and the Commission applies that standard in five-year reviews.<sup>98</sup>

The statute states that “the Commission shall consider that the effects of revocation or termination may not be imminent, but may manifest themselves only over a longer period of time.”<sup>99</sup> According to the SAA, a “‘reasonably foreseeable time’ will vary from case-to-case, but normally will exceed the ‘imminent’ timeframe applicable in a threat of injury analysis in original investigations.”<sup>100</sup>

Although the standard in a five-year review is not the same as the standard applied in an original investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to “consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the orders are revoked or the suspended investigation is terminated.”<sup>101</sup> It directs the Commission to take into account its prior injury determination, whether any improvement in the state of the industry is related to the order or the suspension agreement under review, whether the industry is vulnerable to material injury if an order is revoked or a suspension agreement is terminated, and any findings by Commerce regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).<sup>102</sup> The statute further provides that the presence or absence of any factor that the Commission is required to consider shall not necessarily give decisive guidance with respect to the Commission’s determination.<sup>103</sup>

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States.<sup>104</sup> In doing so, the Commission

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<sup>98</sup> See *NMB Singapore Ltd. v. United States*, 288 F. Supp. 2d 1306, 1352 (Ct. Int’l Trade 2003) (“‘likely’ means probable within the context of 19 U.S.C. § 1675(c) and 19 U.S.C. § 1675a(a)”), *aff’d mem.*, 140 Fed. Appx. 268 (Fed. Cir. 2005); *Nippon Steel Corp. v. United States*, 26 CIT 1416, 1419 (2002) (same); *Usinor Industeel, S.A. v. United States*, 26 CIT 1402, 1404 nn.3, 6 (2002) (“more likely than not” standard is “consistent with the court’s opinion;” “the court has not interpreted ‘likely’ to imply any particular degree of ‘certainty’”); *Indorama Chemicals (Thailand) Ltd. v. United States*, 26 CIT 1059, 1070 (2002) (“standard is based on a likelihood of continuation or recurrence of injury, not a certainty”); *Usinor v. United States*, 26 CIT 767, 794 (2002) (“‘likely’ is tantamount to ‘probable,’ not merely ‘possible’”).

<sup>99</sup> 19 U.S.C. § 1675a(a)(5).

<sup>100</sup> SAA at 887. Among the factors that the Commission should consider in this regard are “the fungibility or differentiation within the product in question, the level of substitutability between the imported and domestic products, the channels of distribution used, the methods of contracting (such as spot sales or long-term contracts), and lead times for delivery of goods, as well as other factors that may only manifest themselves in the longer term, such as planned investment and the shifting of production facilities.” *Id.*

<sup>101</sup> 19 U.S.C. § 1675a(a)(1).

<sup>102</sup> 19 U.S.C. § 1675a(a)(1). Commerce has made no duty absorption findings.

<sup>103</sup> 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

<sup>104</sup> 19 U.S.C. § 1675a(a)(2).

must consider “all relevant economic factors,” including four enumerated factors: (1) any likely increase in production capacity or existing unused production capacity in the exporting country; (2) existing inventories of the subject merchandise, or likely increases in inventories; (3) the existence of barriers to the importation of the subject merchandise into countries other than the United States; and (4) the potential for product shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products.<sup>105</sup>

In evaluating the likely price effects of subject imports if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether there is likely to be significant underselling by the subject imports as compared to the domestic like product and whether the subject imports are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of the domestic like product.<sup>106</sup>

In evaluating the likely impact of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider all relevant economic factors that are likely to have a bearing on the state of the industry in the United States, including but not limited to the following: (1) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity; (2) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and (3) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product.<sup>107</sup> All relevant economic factors are to be considered within the context of the business cycle and the conditions of competition that are distinctive to the industry. As instructed by the statute, we have considered the extent to which any improvement in the state of the domestic industry is related to the orders under review and whether the industry is vulnerable to material injury upon revocation.<sup>108</sup>

## **B. Conditions of Competition and the Business Cycle**

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors

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<sup>105</sup> 19 U.S.C. § 1675a(a)(2)(A-D).

<sup>106</sup> See 19 U.S.C. § 1675a(a)(3). The SAA states that “{c}onsistent with its practice in investigations, in considering the likely price effects of imports in the event of revocation and termination, the Commission may rely on circumstantial, as well as direct, evidence of the adverse effects of unfairly traded imports on domestic prices.” SAA at 886.

<sup>107</sup> 19 U.S.C. § 1675a(a)(4).

<sup>108</sup> The SAA states that in assessing whether the domestic industry is vulnerable to injury if the order is revoked, the Commission “considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they may also demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.” SAA at 885.

“within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>109</sup>

### C. Original Investigations

*Demand considerations.* The Commission stated that the demand for CACCS was derived from the demand for the products in which it was ultimately incorporated. The largest end-use segment of the U.S. market was food and beverage applications (particularly for soft drink beverages), followed by industrial applications (particularly for household detergents and cleaners) and pharmaceutical applications (including for beauty and oral hygiene/cosmetics). CACCS accounted for a relatively low share of the cost of the products in which it was used, and there were relatively few substitutes for CACCS.<sup>110</sup> The Commission found that demand for CACCS in the United States was strong and growing, as reflected by the increase in apparent U.S. consumption from 2006 to 2008 and market participants’ responses to Commission questionnaires.<sup>111</sup>

The Commission found that the domestic like product and subject imports from both Canada and China were all sold more frequently to end users than distributors. While there were hundreds of purchasers of CACCS, a relatively few large purchasers accounted for a substantial portion of total imports. Demand by beverage manufacturers peaked between April and August of each year. Domestic producers contracted for a large portion of their sales in the final quarter of each year for shipments the following year. A large portion of the sales by the domestic industry was made through long-term contracts, which were typically 12 months in duration. Short-term contracts, ranging in duration from 1 to 9 months, were most commonly used by the food and beverage industry. While a majority of responding purchasers reported spot purchases during the POI, the largest end users were less likely to purchase CACCS on a spot basis.<sup>112</sup>

*Supply considerations.* The Commission stated that the three sources of supply in the U.S. market were the domestic industry, imports of subject merchandise from Canada and China, and imports from nonsubject countries. During the POI, the domestic industry held the largest share of the market, followed by cumulated subject imports, and then nonsubject imports.<sup>113</sup>

The Commission found that this was a high fixed cost, capital-intensive industry that was dependent on continuous production in a fermentation process that could not easily be slowed or stopped. Moreover, the physical design of a modern citric acid production facility made it difficult to expand capacity incrementally.<sup>114</sup>

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<sup>109</sup> 19 U.S.C. § 1675a(a)(4).

<sup>110</sup> *Original Determinations*, USITC Pub. 4076, at 19.

<sup>111</sup> *Original Determinations*, USITC Pub. 4076, at 19.

<sup>112</sup> *Original Determinations*, USITC Pub. 4076, at 19-21.

<sup>113</sup> *Original Determinations*, USITC Pub. 4076, at 21.

<sup>114</sup> *Original Determinations*, USITC Pub. 4076, at 21-22.

The Commission stated that the only producer of subject merchandise in Canada, JBL Canada, was wholly owned by the Swiss firm Jungbunzlauer AG. The Swiss firm had been selling citric acid in the U.S. market since the 1970s that was supplied from its plant in Vienna, Austria, and built a facility in Canada in 1999 to supply its customers in the United States and the Western Hemisphere. After the Canadian facility became operational in 2002, Jungbunzlauer AG stopped shipping citric acid to the U.S. market from Austria and replaced those shipments with product from Canada. The Commission found that the citric acid industry in China was the largest in the world and that the five largest reporting Chinese producers accounted for the vast majority of reported 2008 Chinese production. The Commission found that nonsubject imports represented a declining share of the U.S. market and of total imports. The largest suppliers of nonsubject imports in 2008 were, in order, Israel, Colombia, Germany, Thailand, Austria, and Belgium.<sup>115</sup>

*Other.* The Commission stated that the principal raw materials used to produce CACCS consisted of the substrate (such as corn starch, molasses, dextrose, and high fructose corn syrup) and chemicals (including calcium carbonate and sulfuric acid). Energy, including electricity and the cost of producing steam, was also a significant part of the cost of producing CACCS. While U.S. and Canadian producers used corn (and sometimes molasses) as the substrate, Chinese producers used a variety of substrates, including sweet potato powder, tapioca, wheat and corn. The costs of both substrates and energy rose after January 2006, but then declined after mid-2008.<sup>116</sup>

## **1. The Current Reviews**

The following conditions of competition inform our determinations in these reviews.

### **a. Demand Conditions**

The factors driving demand for CACCS in the U.S. market have not changed since the original investigations. The most frequent end use for CACCS continues to be carbonated beverages, while other major end uses include other beverages, food, detergents, cleaners, personal care products, and pharmaceuticals.<sup>117</sup> CACCS generally accounts for a small share of the cost of the end-use products in which it is used, and there are very limited substitutes for CACCS.<sup>118</sup>

Market participants reported mixed expectations regarding future demand in the U.S. market. All U.S. producers anticipate that U.S. demand will decline, while \*\*\* anticipates U.S. demand will increase.<sup>119</sup> Importers and purchasers were divided as to their expectations for

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<sup>115</sup> *Original Determinations*, USITC Pub. 4076, at 22-23.

<sup>116</sup> *Original Determinations*, USITC Pub. 4076, at 23.

<sup>117</sup> CR at II-1, II-9; PR at II-1, II-6; Hearing Tr. at 28-29, 101 (Hurt); 152 (Rainville).

<sup>118</sup> CR at II-12 to II-13; PR at II-7 to II-8.

<sup>119</sup> CR at II-11; PR at II-7.

future demand.<sup>120</sup> Both Domestic Producers and JBL agree that U.S. demand for soft drinks has been declining,<sup>121</sup> but they disagree as to whether there has been or will be offsetting growth in other products using CACCS.<sup>122</sup>

Apparent U.S. consumption increased by \*\*\* percent from 2009 to 2013, from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2013.<sup>123</sup>

## b. Supply Conditions

The three sources of supply in the U.S. market are domestic production, imports of subject merchandise from Canada and China, and imports from nonsubject countries. During the period of the review, the domestic industry held the largest share of the U.S. market, with its share of apparent U.S. consumption ranging between a period low of \*\*\* percent in 2010 and a period high of \*\*\* percent in 2011.<sup>124</sup> Domestic capacity increased by 3.0 percent during

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<sup>120</sup> Most importers and purchasers reported expecting no change in demand or expecting demand to fluctuate, with some expecting it to increase or decrease. CR/PR at Table II-3.

<sup>121</sup> JBL contends that the decline in soft drink consumption has been taking place at a gradual rate over a long period of time and that demand for CACCS has been increasing and will continue to increase despite this gradual decline. JBL's Posthearing Brief, Exh. 1 at 17-19 (response to Commissioner Johanson); Exh. 2 at 1-2 (response to staff question). Domestic Producers argue that the decline in soft drink consumption means that demand for CACCS is unlikely to increase in the future. Domestic Producers' Prehearing Brief at 9-11; Domestic Producers' Posthearing Brief, Answers to Questions from the Commission at 16-17 (response to Commissioner Johanson); Hearing Tr. at 28-29, 99 (Hurt); 99-100 (Aud).

<sup>122</sup> Domestic Producers' Prehearing Brief at 9-11; Domestic Producers' Posthearing Brief, Answers to Questions from the Commission at 16-17 (response to Commissioner Johanson); Hearing Tr. at 28-29 (Hurt); JBL's Posthearing Brief, Exh. 1 at 17-19 (response to Commissioner Johanson); Exh. 2 at 1-2 (response to staff question). A ban by a number of U.S. states in 2010 on the use of phosphates in dishwashing detergents caused detergent makers to use more citric acid and trisodium citrate in automatic dishwashing detergents. CR at I-10 n.24; PR at I-16 to I-17 n.24; Hearing Tr. at 153-154, 178-179 (Rainville).

<sup>123</sup> CR/PR at Tables I-1, C-1. Apparent U.S. consumption by quantity increased from \*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2010 and \*\*\* dry pounds in 2011. It declined slightly to \*\*\* dry pounds in 2012, and then increased to \*\*\* dry pounds in 2013. It was \*\*\* dry pounds in interim 2013 and \*\*\* dry pounds in interim 2014. *Id.* However, in each year of the period of review, apparent U.S. consumption was below the level of \*\*\* dry pounds in 2008, the last year of the original POI. CR/PR at Table I-1.

<sup>124</sup> CR/PR at Table I-1. In the original POI, U.S. producers' share of the quantity of apparent U.S. consumption was \*\*\* percent in 2006, \*\*\* percent in 2007, and \*\*\* percent in 2008. *Id.* During the period of review, U.S. producers' share of the quantity of apparent U.S. consumption was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*



the period of review, from 541.9 million dry pounds in 2009 to 558.3 million dry pounds in 2013, but was below apparent U.S consumption during each year of the period of review.<sup>125</sup>

The volume of cumulated subject imports was considerably lower during the period of review than during the original POI.<sup>126</sup> The market share of cumulated subject imports from Canada and China during the period of review ranged between a period high of \*\*\* percent in 2010 and a period low of \*\*\* percent in 2011.<sup>127</sup>

The volume of nonsubject imports increased irregularly by 48.0 percent between 2009 and 2013.<sup>128</sup> The market share of nonsubject imports was larger than that of cumulated subject imports during each year of the period of review.<sup>129</sup> The largest sources of nonsubject imports in 2013 were Thailand, Israel, Belgium, Colombia, and Germany.<sup>130</sup>

As in the original investigations, we find that CACCS is a high fixed cost, capital-intensive industry that is dependent on continuous production for efficient operations.<sup>131</sup>

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<sup>125</sup> CR/PR at Tables I-1, C-1. In 2013, domestic capacity of 558.3 million dry pounds was below apparent U.S. consumption of \*\*\* dry pounds. CR/PR at Table I-1.

<sup>126</sup> During the original POI, the volume of cumulated subject imports was \*\*\* dry pounds in 2006, \*\*\* dry pounds in 2007 and \*\*\* dry pounds in 2008. INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921). During the period of review, the volume of cumulated subject imports was \*\*\* dry pounds in 2009, \*\*\* dry pounds in 2010, \*\*\* dry pounds in 2011, \*\*\* dry pounds in 2012, and \*\*\* dry pounds in 2013. It was \*\*\* dry pounds in interim 2013 and \*\*\* dry pounds in interim 2014. CR/PR at Table I-1.

<sup>127</sup> CR/PR at Table I-1. In the original POI, the share of the quantity of apparent U.S. consumption held by cumulated subject imports was \*\*\* percent in 2006, \*\*\* percent in 2007, and \*\*\* percent in 2008. *Id.* During the period of review, the share of the quantity of apparent U.S. consumption held by cumulated subject imports was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>128</sup> CR/PR at Tables I-1, C-1. The quantity of nonsubject imports was 131.0 million dry pounds in 2009, 203.0 million dry pounds in 2010, 168.2 million dry pounds in 2011, 173.9 million dry pounds in 2012, and 193.8 million dry pounds in 2013. It was 150.1 million dry pounds in interim 2013, and 152.4 million dry pounds in interim 2014. CR/PR at Table C-1.

<sup>129</sup> The share of the quantity of apparent U.S. consumption held by nonsubject imports was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>130</sup> CR/PR at Table IV-2.

<sup>131</sup> Hearing Tr. at 17 (Cuddy); 22, 135 (Warner); 35 (Aud); 146 (Grant); CR at II-10; PR at II-7.

### c. Substitutability

Purchasers indicated that price is a very important factor in their purchasing decisions, although other factors such as reliability of supply and quality are also very important. Price was listed as a very important factor by 25 responding purchasers, while 26 responding purchasers listed reliability of supply as a very important factor, and many purchasers also listed availability, product consistency, and quality meeting industry standards as very important factors.<sup>132</sup> In ranking factors used in their purchasing decisions, 27 purchasers listed price among the top three factors, as compared to 21 purchasers listing quality among the top three factors. However, 18 purchasers ranked quality as the first-most important factor, and 7 purchasers ranked price as their first-most important factor.<sup>133</sup>

Purchasers rated the domestic like product and subject imports from Canada as comparable in all 15 factors surveyed. Purchasers rated the domestic like product and subject imports from China to be comparable in 12 of 15 factors and rated the domestic like product as superior in three factors. Purchasers rated subject imports from Canada and subject imports from China to be comparable in 13 of 15 factors and rated subject imports from Canada as superior in two factors.<sup>134</sup>

Based on the record in these reviews, we find that the domestic like product and subject imports from Canada and China are moderately to highly substitutable<sup>135</sup> and that price is an important factor in purchasing decisions.

### d. Other Conditions

A relatively small number of U.S. purchasers account for a large percentage of U.S. purchases of CACCS.<sup>136</sup> Purchases by seven firms accounted for 47 percent of apparent U.S. consumption in 2013.<sup>137</sup> U.S. producers sell CACCS primarily on a contract basis, while importers of subject merchandise from Canada and China sell mainly on a spot basis.<sup>138</sup> While

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<sup>132</sup> CR/PR at Table II-6. Twenty-six firms listed reliability of supply as very important, 25 firms listed price and availability, 24 firms listed product consistency, and 23 firms listed quality meets industry standards. *Id.*

<sup>133</sup> CR/PR at Table II-5.

<sup>134</sup> CR/PR at Table II-8. A majority or plurality of purchasers rated the domestic like product as superior to subject imports from China in delivery time, technical support/service, and U.S. transportation costs. A plurality of purchasers rated subject imports from Canada as superior to subject imports from China in delivery time and U.S. transportation costs. *Id.*

<sup>135</sup> CR at II-13; PR at II-8.

<sup>136</sup> Hearing Tr. at 17 (Cuddy); 37 (O'Dwyer).

<sup>137</sup> CR at I-28; PR at I-21.

<sup>138</sup> CR at V-4; PR at V-3. In 2013, \*\*\* percent of U.S. importers' commercial U.S. shipments of subject imports from Canada were on a spot basis, while 100 percent of U.S. importers' reported commercial U.S. shipments of subject imports from China were on a spot basis. CR/PR at Table V-2. During the original POI, U.S. sales of CACCS products were contract sales for over 99 percent of the (Continued...)

U.S. producers' contracts generally do not allow for price renegotiation during the contract term, some U.S. producers reported that certain purchasers have asked for downward price renegotiation mid-contract when prices in the spot market have fallen.<sup>139</sup>

## **D. Likely Volume of Subject Imports**

### **1. Original Investigations**

In the original investigations, the Commission found that subject imports had a large and growing presence in the U.S. market during the POI. It stated that imports from nonsubject countries had a smaller and declining presence in the U.S. market. Apparent U.S. consumption was strong and increased by \*\*\* percent during the POI. The Commission found that cumulated subject imports grew at a faster pace than demand, increasing by \*\*\* percent during the POI and capturing an increasing share of the U.S. market, first at the expense of nonsubject imports and by 2008 at the expense of the domestic industry.<sup>140</sup>

The Commission found that cumulated subject imports held between one-third and one-half of the U.S. market during the POI, and their quantity and market share grew steadily. The domestic industry was unable to take full advantage of exceptionally strong demand conditions; its shipments and production rose at a pace well below the rate at which consumption increased. The Commission found that the volume of cumulated subject imports was significant both absolutely and relative to consumption and production in the United States, and it also found that the increase in the volume of subject imports was significant relative to the increase in apparent U.S. consumption.<sup>141</sup>

### **2. The Current Reviews**

The record indicates that subject producers in Canada and China have both the means and the incentive to increase shipments of subject merchandise to the U.S. market significantly within a reasonably foreseeable time if the antidumping and countervailing duty orders are revoked.

The cumulated subject industries in Canada and China have substantial capacity, have added capacity since the orders were imposed in 2009, and have substantial excess capacity. JBL Canada added \*\*\* dry pounds of capacity between 2009 and 2013, increasing capacity from

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(...Continued)

quantity of the products sold, while JBL reported that \*\*\* percent of its product was sold using annual or long-term contracts, and spot sales accounted for \*\*\* percent of its sales. During the original POI, approximately 40 percent of Chinese CACCS products were sold on a spot basis. INV-GG-036 (April 27, 2009) at V-7 (EDIS Document No. 534921).

<sup>139</sup> CR at V-4 to V-5 and n.6; PR at V-3 to V-4 and n.6; Hearing Tr. at 76, 96-97 (Hurt); 76 (Aud).

<sup>140</sup> *Original Determinations*, USITC Pub. 4076, at 23-24.

<sup>141</sup> *Original Determinations*, USITC Pub. 4076, at 24-25.

\*\*\* dry pounds in 2009 to \*\*\* dry pounds in 2013.<sup>142</sup> JBL Canada had its \*\*\* level of capacity utilization during the period of review in 2013, declining from \*\*\* percent in 2012 to \*\*\* percent in 2013, and had approximately \*\*\* dry pounds of unused capacity in 2013.<sup>143</sup>

The available information indicates that the Chinese CACCS industry has very large capacity, has substantially increased capacity during the period of review, and has very large excess capacity. Industry studies indicate that the Chinese CACCS industry is the world's largest, with over two-thirds of global capacity. According to IHS, the citric acid capacity of the Chinese industry approximately \*\*\* between 2008 and 2012, increasing from a reported 928,300 metric tons in 2008 to \*\*\* metric tons (equivalent to \*\*\* pounds) in 2012, with Chinese industry capacity in 2012 \*\*\*. Available Information indicates that all major Chinese producers of citric acid have either expanded capacity or announced plans to expand capacity by the end of 2015.<sup>144</sup> Capacity utilization of the Chinese industry was estimated at \*\*\* percent in 2012, leaving unused Chinese industry capacity \*\*\*.

As previously discussed, CACCS producers have a strong economic incentive to run their plants continuously, thereby motivating subject producers to produce CACCS at levels equivalent or nearly equivalent to capacity levels. Both the Canadian and Chinese subject industries are highly export-oriented and are therefore likely to export CACCS in order to maximize capacity utilization. Total exports as a percentage of JBL Canada's total shipments ranged between \*\*\* percent and \*\*\* percent during the full years of the period of review.<sup>145</sup> Available information indicates that exports account for more than \*\*\* percent of Chinese industry production.<sup>146</sup>

We find that producers in Canada and China would likely direct significant volumes of CACCS to the U.S. market should the antidumping and countervailing duty orders under review be revoked. Even under the discipline of the orders, cumulated subject imports continued to be present in the U.S. market at a significant volume and market share throughout the period of review, indicating the continued interest of subject producers in the U.S. market.<sup>147</sup>

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<sup>142</sup> CR/PR at Table IV-11. As previously discussed, JBL Canada also \*\*\*. Its capacity in interim 2013 was \*\*\* dry pounds, and its capacity in interim 2014 was \*\*\* dry pounds. CR/PR at Table IV-11; CR at IV-16; PR at IV-10; Hearing Tr. at 148 (Grant).

<sup>143</sup> In 2013, the capacity of the subject industry in Canada was \*\*\* dry pounds, which was approximately \*\*\* dry pounds greater than its production of \*\*\* dry pounds. CR/PR at Table IV-11. JBL Canada's capacity utilization rate was higher in both interim 2013 and interim 2014 than in full year 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>144</sup> CR at IV-22 and n. 12; IV-23 to IV-24; PR at IV-11 n.12, IV-12.

<sup>145</sup> CR/PR at Table IV-11. Exports as a percentage of total shipments were \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. They were \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

<sup>146</sup> CR at II-8, IV-22; PR at II-5, IV-11.

<sup>147</sup> The volume of cumulated subject imports was \*\*\* dry pounds in 2009, \*\*\* dry pounds in 2010, \*\*\* dry pounds in 2011, \*\*\* dry pounds in 2012, and \*\*\* dry pounds in 2013. It was \*\*\* dry pounds in interim 2013 and \*\*\* dry pounds in interim 2014. The share of the quantity of apparent U.S. consumption held by cumulated subject imports was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* (Continued...)

The U.S. market for CACCS is one of the largest in the world and is attractive to subject producers.<sup>148</sup> The available information in the record, including information from \*\*\*, indicates that the U.S. market has generally had higher prices for CACCS than other markets, making it attractive to subject exporters in Canada and China. Both \*\*\* and \*\*\* reported that prices in the U.S. market were higher than in other markets.<sup>149</sup> \*\*\*.<sup>150</sup>

Because of higher U.S. prices, the size of the U.S. market, and the geographic proximity of its plant to the U.S. market, we find that JBL Canada would have an incentive to redirect exports from other markets to the United States upon revocation and is likely to do so. Moreover, although JBL reported selling \*\*\* percent of its product in the U.S. market using annual and long-term contracts during the original POI,<sup>151</sup> in these reviews it \*\*\*.<sup>152</sup> If the order on CACCS from Canada were revoked, JBL would have a greater ability to compete with U.S. producers for long-term and annual contract sales on the basis of price.

Brazil, the European Union, India, Russia, Thailand, and Ukraine maintain antidumping duty orders on citric acid from China.<sup>153</sup> India has in effect a global safeguard measure on imports of sodium citrate.<sup>154</sup> These trade barriers to imports of CACCS in other markets provide a further incentive for subject producers to ship subject product to the United States rather than those other markets.

Given the cumulated subject producers' capacity increases, unused capacity, and overall export orientation, the size and relative attractiveness of the U.S market, third-country trade barriers on imports of CACCS, and the continued presence of subject imports from Canada and China in the U.S. market during the period of review, we conclude that cumulated subject import volumes would likely be significant, both in absolute terms and relative to U.S. consumption, upon revocation of the orders.<sup>155</sup>

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(...Continued)

percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. CR/PR at Table C-1.

<sup>148</sup> Hearing Tr. at 147 (Grant); 150 (Rainville); 190 (Waite). IHS reported that the U.S. market accounted for \*\*\* percent of 2012 world consumption of citric acid. It also listed the North American market as the largest in the world, with \*\*\* percent of world consumption in 2012. CR at IV-29; PR at IV-17.

<sup>149</sup> CR at IV-28; PR at IV-16; Hearing Tr. at 115 (Kotula).

<sup>150</sup> \*\*\*. CR at IV-28; PR at IV-16.

<sup>151</sup> INV-GG-036 (April 27, 2009) at V-7 (EDIS Document No. 534921).

<sup>152</sup> CR at V-5; PR at V-3. \*\*\*. *Id.*

<sup>153</sup> CR at IV-24; PR at IV-12. In addition, Colombia and the Eurasian Economic Union (which currently includes Russia, Kazakhstan, Belarus and Armenia, and was to include Kyrgyzstan as of May 9, 2015) have ongoing antidumping investigations with respect to imports of citric acid from China. *Id.*

<sup>154</sup> Neither imports from Canada nor imports from China are excluded from India's global safeguard measure on imports of sodium citrate. See EDIS Document No. 554343. There is no information in the record indicating that JBL Canada has exported any sodium citrate to India since it began production of sodium citrate in October 2011. JBL's Posthearing Brief, Exh. 1 at 66 (response to Chairman Broadbent).

<sup>155</sup> We have also examined inventories in our analysis of the likely volumes of subject imports, although we do not have questionnaire or other data available on inventories of subject merchandise in (Continued...)

## E. Likely Price Effects

### 1. Original Investigations

In the original investigations, the Commission found that CACCS was a commodity product and that price was an important consideration to purchasers, which also reported that quality and availability were important considerations. While recognizing some non-price differences among CACCS from different sources, the Commission found that because producers in the United States, Canada, and China supplied a product of acceptable quality, and all sold large quantities to the U.S. market, they competed primarily on price.<sup>156</sup>

The Commission determined that the pricing data taken as a whole showed mixed underselling and overselling. It found that most of the volume of reported import and domestic contract sales was associated with overselling comparisons. It noted that the filing of the petitions in April 2008 affected prices in the U.S. market, because prices of subject imports rose substantially during 2008 and underselling was much more prevalent before the petitions were filed. It found that subject import pricing acted as a cap or ceiling on the price levels that could be obtained by domestic producers and that the underselling that occurred was significant because it established the cap or ceiling at low levels.<sup>157</sup>

The Commission did not find that cumulated subject imports significantly depressed prices of the domestic like product in the U.S. market, in light of its findings that prices of the domestic like product and subject merchandise were generally stable in the earlier portion of the POI and were higher at the end of the POI.<sup>158</sup>

The Commission found that the domestic industry was not able to increase its prices during the POI to levels sufficient to cover increases in its costs, despite strong and increasing demand. The Commission found that the domestic industry experienced a cost-price squeeze, as reflected in its very high unit cost of goods sold (“COGS”) as a share of unit net sales. The

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(...Continued)

China. Reported end-of-period inventories of subject merchandise in Canada increased from 2009 to 2012, then declined sharply in 2013. They were \*\*\* dry pounds in 2009, \*\*\* dry pounds in 2010, \*\*\* dry pounds in 2011, \*\*\* dry pounds in 2012, and \*\*\* dry pounds in 2013. They were \*\*\* dry pounds in interim 2013, and \*\*\* dry pounds in interim 2014. CR/PR at Table IV-11. U.S. importers’ cumulated end-of-period inventories from Canada and China increased from 2009 to a period high of \*\*\* dry pounds in 2010, but then declined each year from 2010 to 2013, reaching a period low of \*\*\* dry pounds in 2013. They were \*\*\* dry pounds in 2009, \*\*\* dry pounds in 2010, \*\*\* dry pounds in 2011, \*\*\* dry pounds in 2012, and \*\*\* dry pounds in 2013. They were \*\*\* dry pounds in interim 2013, and \*\*\* dry pounds in interim 2014. CR/PR at Table IV-9. JBL Canada reports that it does not produce products other than citric acid and trisodium citrate and that there is no possibility of product shifting. Hearing Tr. at 163 (Kerwin); CR at II-7; PR at II-5. Given the lack of questionnaire data from subject Chinese CACCS producers, there is little information in the record on the ability of Chinese producers to switch between producing other products and subject CACCS on the same equipment.

<sup>156</sup> *Original Determinations*, USITC Pub. 4076, at 25-26.

<sup>157</sup> *Original Determinations*, USITC Pub. 4076, at 26-28.

<sup>158</sup> *Original Determinations*, USITC Pub. 4076, at 28.

Commission found that the domestic industry's inability to obtain higher prices in 2007 was due in significant part to the large and growing presence of relatively low-priced subject imports, which left the domestic industry in no position to demand prices sufficient to offset its surging costs for corn. The Commission disagreed with arguments by the respondents that the domestic industry was unable to recover its increasing costs because of previously negotiated long-term contracts that did not account for an unexpected increase in corn prices in 2007. The Commission found that intra-industry competition among the three domestic producers did play a role in the inadequate price levels they received, but that did not call into question the evidence showing significant pricing pressure from cumulated subject imports.<sup>159</sup>

Thus, the Commission found that cumulated subject imports suppressed prices of the domestic like product to a significant degree and concluded that the large and increasing volumes of subject imports had significant effects on prices of the domestic like product.<sup>160</sup>

## 2. The Current Reviews

As discussed above, domestically produced CACCS and subject imports from Canada and China are interchangeable,<sup>161</sup> and price is a very important factor in purchasing decisions.<sup>162</sup> In the event of revocation, it is likely that cumulated subject imports would compete in every segment of the U.S. market, including sales pursuant to long-term and annual contracts, and would compete aggressively for sales on the basis of price.

The Commission requested pricing data for seven CACCS products in these reviews.<sup>163</sup> The pricing data show that, with the orders in place, there was mixed underselling and overselling by cumulated subject imports during the period of review, with more overselling than underselling. Cumulated subject imports undersold the domestic like product in 70 out of 237 quarterly comparisons, with an average margin of underselling of 6.2 percent. Cumulated subject imports oversold the domestic like product in 167 out of 237 quarterly comparisons, with an average margin of overselling of 12.7 percent.<sup>164</sup> The volume of cumulated subject

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<sup>159</sup> *Original Determinations*, USITC Pub. 4076, at 28-31.

<sup>160</sup> *Original Determinations*, USITC Pub. 4076, at 30, 32.

<sup>161</sup> All U.S. producers reported that CACCS from each of these three sources is always interchangeable, while a majority of U.S. importers and U.S. purchasers reported that CACCS from each of these three sources is always or frequently interchangeable. CR/PR at Table II-9.

<sup>162</sup> CR/PR at Table II-6.

<sup>163</sup> All three U.S. producers, two importers of subject merchandise from Canada, and six importers of subject merchandise from China provided usable pricing data, although not all firms reported pricing for all products for all quarters. Pricing data reported by these firms accounted for approximately 45.4 percent of U.S. producers' U.S. commercial shipments of CACCS during the period of review and \*\*\* percent of U.S. commercial shipments of subject imports from Canada. The reported pricing data accounted for 95.2 percent of U.S. commercial shipments of subject imports from China reported by firms responding to the Commission's importer questionnaire, but importer questionnaire responses accounted for only \*\*\* percent of subject imports from China in 2013. CR at V-8; PR at V-5.

<sup>164</sup> CR/PR at Table V-11.

imports that undersold the domestic like product constituted \*\*\* dry pounds out of \*\*\* total dry pounds accounted for by the pricing data, or \*\*\* percent by volume.

Given the importance of price in purchasing decisions and the interchangeability of the products, suppliers of subject merchandise will seek to increase their sales in the U.S. market by offering CACCS at low prices. Underselling is likely to be sufficiently pervasive to have significant effects on the domestic industry's market share and/or prices. Thus, absent the discipline of the orders, there would likely be more pervasive underselling than currently exists.<sup>165</sup> With increasing volumes of subject merchandise offered at low prices, the domestic industry would, in order to retain sales, be forced to choose to cut prices, restrain price increases when its costs increase, or lose market share. As previously discussed, the CACCS industry is dependent on a continuous production process and seeks to maintain high capacity utilization; in light of these conditions of competition, the domestic industry is less likely to cut production and forego market share than to make price adjustments. Consequently, the increasing volumes of subject imports are likely to have a significant effect on prices for the domestic like product.

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<sup>165</sup> In the original investigations, cumulated subject imports from Canada and China undersold the domestic like product in 139 out of 231 comparisons. CR/PR at Table V-11 n.1.



## F. Likely Impact<sup>166</sup>

### 1. Original Investigations

In the original investigations, the Commission found that a number of the domestic industry's performance indicators improved between 2006 and 2007, but slowed or declined between 2007 and 2008 notwithstanding strong and increasing demand in the U.S. market. Because the domestic industry was unable to raise prices sufficiently, it had substantial operating losses, negative net income and negative cash flow throughout the POI. The Commission found that the domestic industry benefitted from purchasers' preference for a U.S. supplier so that many of its production indicators remained positive, but the large and increasing presence of cumulated subject imports put pressure on the industry's prices. Despite increasing demand, the industry was unable to raise prices adequately to improve its operating income while meeting rising costs for raw materials and energy, and its financial

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<sup>166</sup> The statute additionally instructs that "the Commission may consider the magnitude of the margin of dumping or the magnitude of the net countervailable subsidy" in making its determination in a five-year review. 19 U.S.C. § 1675a(a)(6). In its expedited sunset review with respect to the antidumping duty order on CACCS from Canada, Commerce determined likely dumping margins of 23.21 percent for Jungbunzlauer Canada Inc. and 23.21 percent for all others. In its expedited sunset review with respect to the antidumping duty order on CACCS from China, Commerce determined likely dumping margins of 94.61 percent for Yixing Union Biochemical Co., Ltd.; 111.85 percent for 15 named Chinese exporters/producers; 129.08 percent for TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.); and 156.87 percent for the PRC-wide entity. *Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China: Final Results of the Expedited First Sunset Reviews of the Antidumping Duty Orders*, 79 Fed. Reg. 45763 (August 6, 2014).

In its expedited sunset review of the countervailing duty order on CACCS from China, Commerce found likely net countervailable subsidy rates of 36.46 percent *ad valorem* for Yixing Union Biochemical Co., Ltd. and Yixing Union Cogeneration Co., Ltd.; 44.31 percent *ad valorem* for TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.); 150.58 percent *ad valorem* for Anhui BBBCA Biochemical Co. Ltd, and 39.77 percent *ad valorem* for All Others. *Citric Acid and Certain Citrate Salts from the People's Republic of China: Final Results of Expedited Sunset Review of the Countervailing Duty Order*, 79 Fed. Reg. 45761 (August 6, 2014).

The statute requires that we "consider information regarding the nature of the countervailable subsidy and whether the subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement." 19 U.S.C. § 1675a(6). In its decision memorandum in its expedited sunset review of the countervailing duty order on CACCS from China, Commerce identified one loan program and three grant programs that fall within the definition of an export subsidy under Article 3.1 of the World Trade Organization (WTO) Subsidies Agreement (which specifies certain types of subsidies that are prohibited). It also identified 48 programs that could be subsidies described in Article 6.1 of the WTO Subsidies Agreement (which describes certain circumstances under which serious prejudice could be deemed to exist). July 30, 2014 Commerce memorandum from Christian Marsh to Paul Piquado entitled "*Issues and Decision Memorandum for the Final Results of Expedited Sunset Review of the Countervailing Duty Order on Citric Acid and Certain Citrate Salts from the People's Republic of China*," at 14-16 (EDIS Document No. 556471).

performance suffered. By the end of the period, cumulated subject imports began taking market share from the domestic industry, with significant adverse effects on the domestic industry's performance.<sup>167</sup>

The domestic industry's production and U.S. shipments increased over the POI, but did not keep pace with the increase in apparent U.S. consumption. Its end-of-period inventories declined over the POI, while its production capacity remained stable, and its capacity utilization levels improved over the POI. Industry productivity increased and per-unit labor costs declined, but increased productivity was partially accomplished by foregoing plant maintenance. Employment indicators were generally negative. Although the domestic industry's net sales increased over the POI, they did not increase proportionally to demand, so the domestic industry's market share declined between 2007 and 2008.<sup>168</sup>

The domestic industry's average unit COGS increased during the POI, and it experienced a cost-price squeeze as its price increases were not always sufficient to cover increases in its cost of production. The domestic industry posted operating losses in every year from 2006 to 2008. Capital expenditures were low and less than depreciation, and the level of research and development (R&D) was also low. The Commission concluded that cumulated subject imports had a significant adverse impact on the condition of the domestic industry.<sup>169</sup>

In its analysis of factors other than subject imports that may have had an impact on the domestic industry, the Commission stated that the presence of nonsubject imports did not undermine its findings, because nonsubject imports were priced higher and were not taking sales from the domestic industry. The Commission rejected respondents' arguments that the domestic industry's problems were attributable to its lack of capacity to supply all domestic demand and alleged unreliability of supply. The Commission found that the rising cost of corn and the industry's practice of entering into fixed-price contracts did not undermine its findings. The Commission rejected respondents' argument that the industry's poor aggregate financial performance was \*\*\*, given the Commission's focus on the domestic industry as a whole rather than individual firms. Finally, the Commission rejected respondents' contention that the domestic industry's problems were a result of competition among the three domestic producers, noting the record evidence showing significant pricing pressure from subject imports.<sup>170</sup>

## 2. The Current Reviews

The performance of the domestic industry during the period of review was much stronger than during the original POI. After three years of operating losses during the original POI, the domestic industry experienced substantial operating profits and margins throughout

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<sup>167</sup> *Original Determinations*, USITC Pub. 4076, at 32-33.

<sup>168</sup> *Original Determinations*, USITC Pub. 4076, at 33-34.

<sup>169</sup> *Original Determinations*, USITC Pub. 4076, at 34-35.

<sup>170</sup> *Original Determinations*, USITC Pub. 4076, at 35-36.

the period of review.<sup>171</sup> The domestic industry had a higher market share in every year of the period of review than it did during the original POI.<sup>172</sup> As detailed below, there were improvements in employment indicators such as the average number of production workers and the wages paid, as well as in capital expenditures and R&D expenses, relative to the original POI.

The domestic industry's capacity increased slightly over the period of review.<sup>173</sup> Production fluctuated between a period low of 432.2 million dry pounds in 2010 and a period high of 522.5 million dry pounds in 2012, declining slightly overall.<sup>174</sup> Capacity utilization fluctuated between a period low of 79.8 percent in 2010 and a period high of 94.3 percent in 2012, declining slightly overall.<sup>175</sup> U.S. shipments increased over the period of review, ranging between a period low of 392.3 million dry pounds in 2009 and a period high of 470.7 million dry pounds in 2011.<sup>176</sup> The ratio of inventories to total shipments fluctuated but declined overall, ranging between a period high of \*\*\* percent in 2009 and a period low of \*\*\* percent in 2011.<sup>177</sup> The domestic industry's market share fluctuated between a period low of \*\*\* percent in 2010 and a period high of \*\*\* percent in 2011 and in each year of the period of review was above the market share during the original POI.<sup>178</sup>

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<sup>171</sup> CR/PR at Table I-1.

<sup>172</sup> CR/PR at Table I-1.

<sup>173</sup> Capacity totaled 541.9 million dry pounds in 2009, 2010, and 2011, 553.9 million dry pounds in 2012, and 558.3 million dry pounds in 2013. It was 418.7 million dry pounds in both interim 2013 and interim 2014. CR/PR at Table III-3.

<sup>174</sup> Production totaled 497.4 million dry pounds in 2009, 432.2 million dry pounds in 2010, 476.8 million dry pounds in 2011, 522.5 million dry pounds in 2012, and 481.7 million dry pounds in 2013. It was 364.3 million dry pounds in interim 2013 and 370.8 million dry pounds in interim 2014. CR/PR at Table III-3.

<sup>175</sup> Capacity utilization was 91.8 percent in 2009, 79.8 percent in 2010, 88.0 percent in 2011, 94.3 percent in 2012, and 86.3 percent in 2013. It was 87.0 percent in interim 2013 and 88.5 percent in interim 2014. CR/PR at Table III-3.

<sup>176</sup> Total U.S. shipments were 392.3 million dry pounds in 2009, 403.8 million dry pounds in 2010, 470.7 million dry pounds in 2011, 460.2 million dry pounds in 2012, and 444.3 million dry pounds in 2013. They were 342.5 million dry pounds in interim 2013 and 367.7 million dry pounds in interim 2014. CR/PR at Table III-5.

<sup>177</sup> The ratio of inventories to total shipments was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. CR/PR at Table I-1.

<sup>178</sup> In the original POI, U.S. producers' peak share of the quantity of apparent U.S. consumption was \*\*\* percent in 2007. CR/PR at Table I-1. During the period of review, U.S. producers' share of the quantity of apparent U.S. consumption was \*\*\* percent in 2009, \*\*\* percent in 2010, \*\*\* percent in 2011, \*\*\* percent in 2012, and \*\*\* percent in 2013. It was \*\*\* percent in interim 2013 and \*\*\* percent in interim 2014. *Id.*

Employment indicators generally improved over the period of review. The number of production and related workers increased,<sup>179</sup> as did the hours they worked<sup>180</sup> and the wages they were paid,<sup>181</sup> although their productivity declined.<sup>182</sup>

The domestic industry's net sales fluctuated, but increased over the period of review.<sup>183</sup> U.S. producers' total COGS likewise fluctuated, but increased overall.<sup>184</sup> After sustaining operating losses in 2006, 2007, and 2008 during the original POI, the domestic industry registered an operating profit of \$97.7 million in 2009, a period high during the period of review, and continued to record substantial operating profits throughout the period of review, although operating income declined to a period low of \$49.1 million in 2013.<sup>185</sup>

The operating income margin followed the same trend. After negative operating margins during the original POI, the domestic industry had a period high operating margin of 25.9 percent in 2009, followed by operating margins of 20.0 percent or above in 2010, 2011, and 2012 and then a period low margin of 13.2 percent in 2013.<sup>186</sup> Capital expenditures were significantly higher during the period of review than during the original POI, ranging between a

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<sup>179</sup> The average number of production and related workers (PRWs) was 297 in 2009, 306 in 2010, 317 in 2011, 312 in 2012, and 315 in 2013. The average number of PRWs was 313 in interim 2013 and 317 in interim 2014. CR/PR at Table I-1.

<sup>180</sup> Total hours worked were 677,000 hours in 2009, 680,000 hours in 2010, 702,000 hours in 2011, 729,000 hours in 2012, and 700,000 hours in 2013. Total hours worked were 552,000 hours in interim 2013 and 560,000 hours in interim 2014. CR/PR at Table I-1.

<sup>181</sup> Wages paid totaled \$22.8 million in 2009, \$23.3 million in 2010, \$24.5 million in 2011, \$24.1 million in 2012, and \$25.0 million in 2013. Wages paid totaled \$18.7 million in interim 2013 and \$19.0 million in interim 2014. CR/PR at Table I-1.

<sup>182</sup> Productivity, as measured by dry pounds per hour, totaled 734.6 in 2009, 635.6 in 2010, 679.3 in 2011, 716.7 in 2012 and 688.2 in 2013. It was 660.0 in interim 2013 and 662.1 in interim 2014. CR/PR at Table I-1.

<sup>183</sup> Total net sales were 448.1 million dry pounds in 2009, 447.6 million dry pounds in 2010, 508.2 million dry pounds in 2011, 496.5 million dry pounds in 2012, and 479.8 million dry pounds in 2013. Net sales were 370.6 million dry pounds in interim 2013 and 389.3 million dry pounds in interim 2014. CR/PR at Table I-1.

<sup>184</sup> Total COGS was \$265.8 million in 2009, \$251.4 million in 2010, \$299.2 million in 2011, \$289.0 million in 2012, and \$304.2 million in 2013. Total COGS was \$239.5 million in interim 2013 and \$222.2 million in interim 2014. CR/PR at Table I-1.

<sup>185</sup> In the original POI, the domestic industry had operating losses of \$10.7 million in 2006, \$21.6 million in 2007, and \$7.5 million in 2008. CR/PR at Table I-1. During the period of review, operating income totaled \$97.7 million in 2009, \$92.8 million in 2010, \$79.2 million in 2011, \$83.0 million in 2012, and \$49.1 million in 2013. Operating income was \$36.9 million in interim 2013 and \$37.8 million in interim 2014. CR/PR at Table I-1.

<sup>186</sup> The operating margin was 25.9 percent in 2009, 25.8 percent in 2010, 20.0 percent in 2011, 21.3 percent in 2012, and 13.2 percent in 2013. It was 12.7 percent in interim 2013 and 13.8 percent in interim 2014. CR/PR at Table I-1.

period low of \$9.2 million in 2009 and a period high of \$21.2 million in 2010.<sup>187</sup> R&D expenses were likewise significantly higher during the period of review than during the original POI, ranging between a period high of \$\*\*\* in 2011, and period low of \$\*\*\* in 2013.<sup>188</sup>

Although the domestic industry experienced declines in a number of performance indicators between 2012 and 2013,<sup>189</sup> the record indicates that the overall performance of the domestic industry was strong throughout the period of review, and we do not find that it is in a vulnerable condition. We find that the improvement in the condition of the domestic industry was in large part attributable to the discipline of the orders, which restrained the volume and pricing of cumulated subject imports throughout the period of review.

As addressed above, we have found that revocation of the orders on subject imports from Canada and China would likely result in a significant increase in subject import volume that would likely have adverse price effects on the domestic industry or reduce its market share. In either event, the likely significant volume of the subject imports would likely have a significant adverse impact on the production, shipments, sales, market share, and revenues of the domestic industry. These reductions would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital and make and maintain necessary capital investments. We therefore conclude that, if the orders were revoked, subject imports from Canada and China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time. We note that, while arguing that the Commission should not cumulate subject imports from Canada with subject imports from China, JBL acknowledged that cumulated subject imports would be likely to cause a recurrence of injury to the U.S. industry.<sup>190</sup>

We have also considered the role of nonsubject imports in the U.S. market. The volume and market share of nonsubject imports fluctuated but increased over the period of review and

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<sup>187</sup> In the original POI, peak capital expenditures were \$7.7 million in 2007. CR/PR at Table I-1. During the period of review, capital expenditures totaled \$9.2 million in 2009, \$21.2 million in 2010, \$18.3 million in 2011, \$11.3 million in 2012, and \$12.1 million in 2013. They totaled \$8.6 million in interim 2013 and \$8.0 million in interim 2014. CR/PR at Table III-13.

<sup>188</sup> In the original POI, peak R&D expenses were \$1.9 million in 2008. *Citric Acid and Certain Citrate Salts from Canada and China*, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final), USITC Pub. 4076 at Table VI-5 (May 2009). During the period of review, R&D expenses totaled \$\*\*\* in 2009, \$\*\*\* in 2010, \$\*\*\* in 2011, \$\*\*\* in 2012, and \$\*\*\* in 2013. They totaled \$\*\*\* in interim 2013 and \$\*\*\* in interim 2014. CR/PR at Table III-13.

<sup>189</sup> Among the indicators in which the domestic industry experienced declines between 2012 and 2013 are production, capacity utilization, shipments, market share, productivity, net sales, operating income, and operating margin. CR/PR at Tables I-1, C-1.

<sup>190</sup> JBL asserted that cumulated subject imports would be likely to cause a recurrence of injury to the U.S. industry, given what JBL characterized as the enormous capacity of the Chinese CACCS industry, the inability of the Chinese industry to sell to many other significant export markets (because of trade barriers), and a history of aggressive and unfair pricing by subject Chinese producers in the U.S. market. Hearing Tr. at 234-235 (Waite). JBL further asserted that subject imports from China in the U.S. market unrestrained by the orders would be "disastrous" for all North American producers of CACCS. *Id.* at 235.

were considerably higher than they were in the original POI.<sup>191</sup> Nevertheless, the increase in nonsubject imports over the period of review coincided with the improvements in the domestic industry's condition discussed above.

We have found that the volume of cumulated subject imports from Canada and China would likely be significant upon revocation of the orders. As previously stated, the domestic industry gained market share after imposition of the orders notwithstanding the increased presence of nonsubject imports in the market. By the same token, the increased volume of cumulated subject imports that is likely upon revocation would displace both domestic production and nonsubject imports. The domestic industry's revenue and financial performance would likely decline as it is forced either to reduce prices or to cede market share to the increased volume of low-priced subject imports.

Accordingly, we find that revocation of the antidumping and countervailing duty orders on CACCS from Canada and China would likely have a significant impact on the domestic industry.

## **G. Conclusion**

For the above-stated reasons, we determine that revocation of the antidumping duty orders on CACCS from Canada and China and the countervailing duty order on CACCS from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

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<sup>191</sup> CR/PR at Tables I-1, C-1; INV-GG-036 (April 27, 2009) at Table IV-2 (EDIS Document No. 534921).

## PART I: INTRODUCTION

### BACKGROUND

On April 1, 2014, the U.S. International Trade Commission (“Commission” or “USITC”) gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended (“the Act”),<sup>1</sup> that it had instituted reviews to determine whether revocation of the countervailing duty order on citric acid and certain citrate salts (“CACCS”) from China and the antidumping duty orders on CACCS from Canada and China would likely lead to the continuation or recurrence of material injury to a domestic industry.<sup>2 3</sup> On July 7, 2014, the Commission determined that it would conduct full reviews pursuant to section 751(c)(5) of the Act.<sup>4</sup> The following tabulation presents information relating to the background and schedule of this proceeding:<sup>5</sup>

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<sup>1</sup> 19 U.S.C. 1675(c).

<sup>2</sup> *Citric Acid and Certain Citrate Salts from Canada and China; Institution of Five-Year Reviews*, 79 FR 18311, April 1, 2014. All interested parties were requested to respond to this notice by submitting the information requested by the Commission.

<sup>3</sup> In accordance with section 751(c) of the Act, the U.S. Department of Commerce (“Commerce”) published a notice of initiation of five-year reviews of the subject antidumping and countervailing duty orders concurrently with the Commission’s notice of institution. *Initiation of Five-Year (“Sunset”) Review*, 79 FR 18279, April 1, 2014.

<sup>4</sup> *Citric Acid and Certain Citrate Salts From Canada and China; Notice of Commission Determination To Conduct Full Five-Year Reviews*, 79 FR 42049, July 18, 2014. On July 7, 2014, the Commission determined that it should proceed to full reviews in the subject five-year reviews pursuant to section 751(c) of the Act. With respect to the antidumping duty order on CACCS from Canada, the Commission found that both the domestic group response and the respondent group response to its notice of institution (79 FR 18311, April 1, 2014) were adequate, and determined to conduct a full review. With respect to the antidumping and countervailing duty orders on CACCS from China, the Commission found that the domestic group response was adequate and that the respondent group response was inadequate, but that circumstances warranted full reviews.

<sup>5</sup> The Commission’s notice of institution, notice to conduct full reviews, scheduling notice, and statement on adequacy are referenced in appendix A and may also be found at the Commission’s web site (internet address [www.usitc.gov](http://www.usitc.gov)). Commissioners’ votes on whether to conduct expedited or full reviews may also be found at the web site. Appendix B presents the witnesses appearing at the Commission’s hearing.

Effective date	Action
May 29, 2009	Commerce's countervailing duty order on CACCS from China (74 FR 25705) and Commerce's antidumping duty orders on CACCS from Canada and China (74 FR 25703)
April 1, 2014	Commission's institution of five-year reviews (79 FR 18311)
April 1, 2014	Commerce's initiation of five-year reviews (79 FR 18279)
July 7, 2014	Commission's determinations to conduct full five-year reviews (79 FR 42049, July 18, 2014)
August 6, 2014	Commerce's final results of expedited five-year review of the countervailing duty order on CACCS from China (79 FR 45761) and Commerce's final results of expedited five-year reviews of the antidumping duty orders on CACCS from Canada and China (79 FR 45763)
November 5, 2014	Commission's scheduling of the reviews (79 FR 68299)
March 26, 2015	Commission's hearing
May 21, 2015	Commission's vote
June 11, 2015	Commission's determinations and views

### The original investigations

The original investigations resulted from petitions filed by Archer Daniels Midland Co., Decatur, IL ("ADM"); Cargill, Inc., Wayzata, MN ("Cargill"); and Tate & Lyle Americas, Inc., Decatur, IL ("Tate & Lyle"), on April 14, 2008, alleging that an industry in the United States was materially injured and threatened with material injury by reason of subsidized imports CACCS from China and less-than-fair-value ("LTFV") imports of CACCS from Canada and China. Following notification of final determinations by Commerce that imports of CACCS from China were being subsidized and imports of CACCS from Canada and China were being sold at LTFV, the Commission determined on May 8, 2009, that a domestic industry was materially injured by reason of subsidized imports of CACCS from China and LTFV imports of CACCS from Canada and China.<sup>6</sup> Commerce published the countervailing duty order on subject imports of CACCS from China on May 29, 2009.<sup>7</sup> Commerce published the antidumping duty orders on CACCS from Canada and China on May 29, 2009.<sup>8</sup>

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<sup>6</sup> *Citric Acid and Certain Citrate Salts from Canada and China, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final)*, USITC Publication 4076, May 2009.

<sup>7</sup> *Citric Acid and Certain Citrate Salts From the People's Republic of China: Notice of Countervailing Duty Order*, 74 FR 25705, May 29, 2009.

<sup>8</sup> *Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China: Antidumping Duty Orders*, 74 FR 25703, May 29, 2009.



## RELATED INVESTIGATIONS

CACCS has been the subject of a previous Commission investigation.<sup>9</sup> In 2000, in investigation No. 731-TA-863 (Preliminary), the Commission determined that there was no reasonable indication that an industry in the United States was materially injured or threatened with material injury by reason of imports from China that were allegedly sold at LTFV.<sup>10</sup> The Commission found that the volume of U.S. imports from China was not significant.<sup>11</sup> Further, the Commission concluded that the record did not indicate price depression or suppression and that the U.S. industry was not adversely impacted by reason of U.S. imports from China.<sup>12</sup> Finally, the Commission determined that there was no reasonable indication that the U.S. industry was threatened with material injury by reason of the subject imports.<sup>13</sup>

## SUMMARY DATA

Table I-1 presents a summary of data from the original investigations and the current full five-year reviews. U.S. import data are based on official Commerce statistics, with the exception of data for Canada, which are compiled from the U.S. importer questionnaire of Jungbunzlauer, Inc. ("JBL").

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<sup>9</sup> The scope of the 2000 investigation consisted of citric acid and sodium citrate. The original investigations and current reviews have broader scope consisting of citric acid and sodium citrate as well as potassium citrate and crude calcium citrate.

<sup>10</sup> *Citric Acid and Sodium Citrate From China, Inv. No. 731-TA-863 (Preliminary)*, USITC Publication 3277, February 2000, p. 1.

<sup>11</sup> *Ibid.*, p. 12.

<sup>12</sup> *Ibid.*, pp. 14-15.

<sup>13</sup> *Ibid.*, p. 16.

**Table I-1**  
**CACCS: Comparative data from the original investigations and current reviews, 2006-08, 2009-13,**  
**January-September 2013, and January-September 2014**

Item	Original investigations		
	2006	2007	2008
	<b>Quantity (1,000 dry pounds)</b>		
U.S. consumption quantity	***	***	***
	<b>Share of quantity (percent)</b>		
Share of U.S. consumption: U.S. producers' share	***	***	***
U.S. importers' share:			
Canada	***	***	***
China	***	***	***
Subtotal, subject sources	***	***	***
All other sources	***	***	***
Total imports	***	***	***
	<b>Value (1,000 dollars)</b>		
U.S. consumption	***	***	***
	<b>Share of value (percent)</b>		
Share of U.S. consumption: U.S. producers' share	***	***	***
U.S. importers' share:			
Canada	***	***	***
China	***	***	***
Subtotal, subject sources	***	***	***
All other sources	***	***	***
Total imports	***	***	***
	<b>Quantity (1,000 dry pounds); value (1,000 dollars); and unit value (dollars per dry pound)</b>		
U.S. importers' imports from Canada:			
Quantity	***	***	***
Value	***	***	***
Unit value	***	***	***
China:			
Quantity	158,906	180,108	193,727
Value	65,542	76,571	118,342
Unit value	0.41	0.43	0.61
Subject sources:			
Quantity	***	***	***
Value	***	***	***
Unit value	***	***	***
Nonsubject sources:			
Quantity	68,584	65,634	55,594
Value	39,174	38,802	41,058
Unit value	0.57	0.59	0.74
All countries:			
Quantity	***	***	***
Value	***	***	***
Unit value	***	***	***

*Table continued.*

**Table I-1--Continued**

**CACCS: Comparative data from the original investigations and current reviews, 2006-08, 2009-13, January-September 2013, and January-September 2014**

Item	First reviews					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
U.S. consumption quantity	***	***	***	***	***	***	***
	<b>Share of quantity (percent)</b>						
Share of U.S. consumption: U.S. producers' share	***	***	***	***	***	***	***
U.S. importers' share: Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***
	<b>Value (1,000 dollars)</b>						
U.S. consumption	***	***	***	***	***	***	***
	<b>Share of quantity (percent)</b>						
Share of U.S. consumption: U.S. producers' share	***	***	***	***	***	***	***
U.S. importers' share: Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***
	<b>Quantity (1,000 dry pounds); value (1,000 dollars); and unit value (dollars per pound)</b>						
U.S. importers' imports from Canada:							
Quantity	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***
China:							
Quantity	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***
Subject sources:							
Quantity	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***
Nonsubject sources:							
Quantity	130,991	202,985	168,210	173,889	193,820	150,112	152,407
Value	122,040	168,191	147,607	148,710	157,556	123,017	115,872
Unit value	0.93	0.83	0.88	0.86	0.81	0.82	0.76
All countries:							
Quantity	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***

*Table continued.*

**Table I-1--Continued**

**CACCS: Comparative data from the original investigations and current reviews, 2006-08, 2009-13, January-September 2013, and January-September 2014**

Item	Original investigations		
	2006	2007	2008
	Quantity (1,000 dry pounds); value (1,000 dollars); and unit value (dollars per dry pound)		
U.S. industry:			
Capacity (quantity)	553,913	553,913	553,913
Production (quantity)	475,428	488,403	507,917
Capacity utilization (percent)	85.8	88.2	91.7
U.S. shipments:			
Quantity	369,451	399,578	402,518
Value	165,013	180,132	214,641
Unit value	0.45	0.45	0.53
U.S. export shipments:			
Quantity	96,709	114,348	112,996
Value	41,042	47,381	57,541
Unit value	0.42	0.41	0.51
Ending inventory	77,606	52,316	44,638
Inventories/total shipments	16.6	10.2	8.7
Production workers	306	300	292
Hours worked (1,000)	701	687	669
Wages paid (1,000 dollars)	22,656	21,781	21,751
Hourly wages	\$32.34	\$31.70	\$32.50
Productivity (dry pounds per hour)	678.6	710.8	758.9
Unit labor costs	\$0.05	\$0.04	\$0.04
Financial data:			
Net sales:			
Quantity	466,160	513,924	515,514
Value	205,773	226,909	271,708
Unit value	0.44	0.44	0.53
Total Cost of goods sold	202,849	235,123	266,120
Gross profit or (loss)	2,924	(8,214)	5,588
SG&A expense	13,653	13,420	13,093
Operating income or (loss)	(10,729)	(21,634)	(7,505)
Capitol expenditures	6,534	7,746	5,537
Unit COGS	\$0.44	\$0.46	\$0.52
Unit SG&A expenses	\$0.03	\$0.03	\$0.03
Unit operating income	(\$0.02)	(\$0.04)	(\$0.02)
COGS/ Sales (percent)	98.6	103.6	97.9
Operating income or (loss)/ Sales (percent)	(5.2)	(9.5)	(2.8)

*Table continued.*

**Table I-1--Continued**

**CACCS: Comparative data from the original investigations and current reviews, 2006-08, 2009-13, January-September 2013, and January-September 2014**

Item	First Reviews					January to September	
	2009	2010	2011	2012	2013	2013	2014
	Quantity (1,000 dry pounds); value (1,000 dollars); and unit value (dollars per dry pound)						
U.S. industry:							
Capacity (quantity)	541,913	541,913	541,913	553,913	558,322	418,742	418,742
Production (quantity)	497,356	432,229	476,839	522,452	481,724	364,298	370,790
Capacity utilization (percent)	91.8	79.8	88.0	94.3	86.3	87.0	88.5
U.S. shipments:							
Quantity	392,290	403,796	470,746	460,167	444,282	342,483	367,705
Value	327,478	324,663	366,468	360,348	343,010	267,086	256,493
Unit value	0.83	0.80	0.78	0.78	0.77	0.78	0.70
U.S. export shipments:							
Quantity	55,801	43,849	37,418	36,374	35,516	28,096	21,595
Value	50,322	34,295	28,793	28,977	29,976	23,761	17,446
Unit value	0.90	0.78	0.77	0.80	0.84	0.85	0.81
Ending inventory	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Production workers	297	306	317	312	315	313	317
Hours worked (1,000)	677	680	702	729	700	552	560
Wages paid (1,000 dollars)	22,758	23,348	24,466	24,148	24,991	18,666	19,023
Hourly wages	\$33.62	\$34.34	\$34.85	\$33.12	\$35.70	\$33.82	\$33.97
Productivity (dry pounds per hour)	734.6	635.6	679.3	716.7	688.2	660.0	662.1
Financial data:							
Net sales:							
Quantity	448,092	447,644	508,163	496,540	479,798	370,580	389,301
Value	377,801	358,958	395,262	389,326	372,986	290,848	273,939
Unit value	0.84	0.80	0.78	0.78	0.78	0.78	0.70
Cost of goods sold	265,835	251,424	299,220	288,953	304,219	239,504	222,219
Gross profit or (loss)	111,966	107,534	96,042	100,373	68,767	51,344	51,720
SG&A expense	14,302	14,747	16,797	17,386	19,673	14,439	13,939
Operating income or (loss)	97,664	92,787	79,245	82,987	49,094	36,905	37,781
Capital expenditures	9,166	21,186	18,318	11,348	12,078	8,598	8,049
Unit COGS	\$0.59	\$0.56	\$0.59	\$0.58	\$0.63	\$0.65	\$0.57
Unit SG&A expense	\$0.03	\$0.03	\$0.03	\$0.04	\$0.04	\$0.04	\$0.04
Unit operating income	\$0.22	\$0.21	\$0.16	\$0.17	\$0.10	\$0.10	\$0.10
COGS/ Sales (percent)	70.4	70.0	75.7	74.2	81.6	82.3	81.1
Operating income or (loss)/ Sales (percent)	25.9	25.8	20.0	21.3	13.2	12.7	13.8

Source: Compiled from Office of Investigations memo INV-GG-036, official Commerce statistics, and data submitted in response to Commission questionnaires.

## STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

### Statutory criteria

Section 751(c) of the Act requires Commerce and the Commission to conduct a review no later than five years after the issuance of an antidumping or countervailing duty order or the suspension of an investigation to determine whether revocation of the order or termination of the suspended investigation “would be likely to lead to continuation or recurrence of dumping or a countervailable subsidy (as the case may be) and of material injury.”

Section 752(a) of the Act provides that in making its determination of likelihood of continuation or recurrence of material injury--

*(1) IN GENERAL.-- . . . the Commission shall determine whether revocation of an order, or termination of a suspended investigation, would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time. The Commission shall consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the order is revoked or the suspended investigation is terminated. The Commission shall take into account--*

*(A) its prior injury determinations, including the volume, price effect, and impact of imports of the subject merchandise on the industry before the order was issued or the suspension agreement was accepted,*

*(B) whether any improvement in the state of the industry is related to the order or the suspension agreement,*

*(C) whether the industry is vulnerable to material injury if the order is revoked or the suspension agreement is terminated, and*

*(D) in an antidumping proceeding . . ., (Commerce’s findings) regarding duty absorption . . .*

*(2) VOLUME.--In evaluating the likely volume of imports of the subject merchandise if the order is revoked or the suspended investigation is terminated, the Commission shall consider whether the likely volume of imports of the subject merchandise would be significant if the order is revoked or the suspended investigation is terminated, either in absolute terms or relative to production or consumption in the United States. In so doing, the Commission shall consider all relevant economic factors, including--*

*(A) any likely increase in production capacity or existing unused production capacity in the exporting country,*

*(B) existing inventories of the subject merchandise, or likely increases in inventories,*

*(C) the existence of barriers to the importation of such merchandise into countries other than the United States, and*

*(D) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products.*

*(3) PRICE.--In evaluating the likely price effects of imports of the subject merchandise if the order is revoked or the suspended investigation is terminated, the Commission shall consider whether--*

- (A) there is likely to be significant price underselling by imports of the subject merchandise as compared to domestic like products, and*
- (B) imports of the subject merchandise are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of domestic like products.*

*(4) IMPACT ON THE INDUSTRY.--In evaluating the likely impact of imports of the subject merchandise on the industry if the order is revoked or the suspended investigation is terminated, the Commission shall consider all relevant economic factors which are likely to have a bearing on the state of the industry in the United States, including, but not limited to--*

- (A) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity,*
- (B) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, and*
- (C) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product.*

*The Commission shall evaluate all such relevant economic factors . . . within the context of the business cycle and the conditions of competition that are distinctive to the affected industry.*

Section 752(a)(6) of the Act states further that in making its determination, “the Commission may consider the magnitude of the margin of dumping or the magnitude of the net countervailable subsidy. If a countervailable subsidy is involved, the Commission shall consider information regarding the nature of the countervailable subsidy and whether the subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement.”

### **Organization of report**

Information obtained during the course of the reviews that relates to the statutory criteria is presented throughout this report. A summary of trade and financial data for CACCS as collected in the reviews is presented in appendix C. U.S. industry data are based on the questionnaire responses of three U.S. producers of CACCS that are believed to have accounted for 100 percent of domestic production of CACCS in 2013. U.S. import data and related information are based on Commerce’s official import statistics, proprietary Customs data, and the questionnaire responses of 19 U.S. importers of CACCS that are believed to have accounted

for \*\*\* percent of the total subject U.S. imports during 2013.<sup>14</sup> Foreign industry data and related information are based on the questionnaire responses of one producer of CACCS in Canada, accounting for all production and exports of CACCS in Canada. No producer or exporter from China responded to the Commission’s request for information. Responses by firms to a series of questions concerning the significance of the existing antidumping and countervailing duty orders and the likely effects of revocation of such orders are presented in appendix D.

## COMMERCE’S REVIEWS

### Administrative reviews

#### Canada

Commerce has completed four antidumping duty administrative reviews with regard to subject imports of CACCS from Canada. The results of the administrative reviews are shown in table I-2.<sup>15</sup>

**Table I-2**  
**CACCS: Administrative reviews of the antidumping duty order for Canada**

Date results published	Period of review	Producer or exporter	Margin (percent)
76 FR 34044 (June 10, 2011)	November 20, 2008 - April 30, 2010	Jungbunzlauer Canada, Inc.	1.60
77 FR 24461 (April 24, 2012)	May 1, 2010 - April 30, 2011	Jungbunzlauer Canada, Inc.	2.34
78 FR 64914 (October 30, 2013)	May 1, 2011 - April 30, 2012	Jungbunzlauer Canada, Inc.	1.20
79 FR 37286 (July 1, 2014)	May 1, 2012 - April 30, 2013	Jungbunzlauer Canada, Inc.	0.55

Source: Cited Federal Register notices.

#### China

Commerce has completed four countervailing duty and four antidumping duty administrative reviews with regard to subject imports of CACCS from China. The results of the administrative reviews are shown in tables I-3 and I-4.

<sup>14</sup> According to the domestic interested parties, \*\*\*. Domestic interested parties’ prehearing brief, p. 65-66 and exh. 30.

<sup>15</sup> On July 8, 2011, Jungbunzlauer Canada Inc. filed a First Request for Panel Review with the United States Section of the NAFTA Secretariat pursuant to Article 1904 of the North American Free Trade Agreement. Panel Review was requested of the Final Results of the 2008-2009 and 2009-2010 Antidumping Duty Administrative Review, made by the International Trade Administration, respecting Citric Acid and Certain Citrate Salts from Canada. *North American Free-Trade Agreement, Article 1904 NAFTA Panel Reviews; Request for Panel Review*, 76 FR 42115, July 18, 2011. This review was terminated pursuant to the negotiated settlement between the United States and Canadian industries; the panel review was terminated as of August 2, 2011. *North American Free-Trade Agreement, Article 1904; Binational Panel Reviews: Notice of Termination of Panel Review*, 76 FR 48145, August 8, 2011.



**Table I-3**  
**CACCS: Administrative reviews of the countervailing duty order for China**

<b>Date results published</b>	<b>Period of review</b>	<b>Producer or exporter</b>	<b>Margin (percent)</b>
December 12, 2011 (76 FR 77206)	September 19, 2008 - December 31, 2009	RZBC Co., Ltd.; RZBC Import & Export Co., Ltd.; RZBC (Juxian) Co., Ltd.; and RZBC Group Co., Ltd.	7.44 for 2008; 8.93 for 2009
		Yixing-Union Biochemical Co., Ltd. and Yixing-Union Cogeneration Co., Ltd.	5.65 for 2008; 16.13 for 2009
December 5, 2012 (77 FR 72323)	January 1, 2010 - December 31, 2010	RZBC Co., Ltd., RZBC Juxian Co., Ltd., RZBC Imp. & Exp. Co., Ltd., and RZBC Group Shareholding Co., Ltd.	5.27
January 2, 2014 (79 FR 108)	January 1, 2011 - December 31, 2011	RZBC Co., Ltd., RZBC Juxian Co., Ltd., RZBC Imp. & Exp. Co., Ltd., and RZBC Group Shareholding Co., Ltd.	35.87
December 31, 2014 (79 FR 78799)	January 1, 2012 - December 31, 2012	RZBC Companies	17.55

Source: Cited Federal Register notices.

**Table I-4**  
**CACCS: Administrative reviews of the antidumping duty order for China**

<b>Date results published</b>	<b>Period of review</b>	<b>Producer or exporter</b>	<b>Margin (percent)</b>
December 14, 2011 (76 FR 77772) and Feb. 21, 2012 (amended) (77 FR 9891)	November 20, 2008 -- April 30, 2010	RZBC Co., Ltd./RZBC Imp. & Exp. Co., Ltd./RZBC (Juxian) Co., Ltd..	0.00
		Yixing Union Biochemical Co., Ltd.	1.01 (amended)
December 13, 2012 (77 FR 74171)	May 1, 2010 – April 30, 2011	RZBC Co., Ltd./RZBC Imp. & Exp. Co., Ltd./RZBC (Juxian) Co., Ltd..	0.00
January 2, 2014 (79 FR 101)	May 1, 2011 – April 30, 2012	RZBC Imp. & Exp. Co., Ltd.	0.00
November 3, 2014 (79 FR 65182)	May 1, 2012 – April 30, 2013	Yixing-Union Biochemical Co., Ltd.	6.80
		Laiwu Taihe Biochemistry Co., Ltd	3.08

Source: Cited Federal Register notices.

## Scope inquiry reviews

Commerce has conducted two scope reviews with respect to antidumping and countervailing duty orders on CACCS from Canada and China.<sup>16</sup> On November 2, 2010, U.S. importer Aceto Corporation (“Aceto”) requested that Commerce find that its imports of calcium citrate United States Pharmacopeia (“USP”) to be outside the scope of the countervailing and antidumping duty orders on CACCS from Canada and China.<sup>17</sup> On February 14, 2011, Commerce issued a final scope ruling, finding that Aceto's product is within the scope of those orders.<sup>18</sup>

On July 26, 2010, Global Commodity Group LLC (“GCG”) requested that Commerce find that a blend of citric acid it imports containing 35 percent citric acid from China and 65 percent citric acid from other countries is outside the scope of the antidumping and countervailing duty orders. On May 2, 2011, the Department issued a final scope ruling, finding that GCG's product is within the scope of those orders.<sup>19</sup> Pursuant to this ruling, Commerce has instructed U.S. Customs and Border Protection (“Customs”) that the quantity of citric acid from China in the commingled merchandise is subject to the countervailing and antidumping duty orders. Commerce also instructed Customs that if the quantity of citric acid from China in a commingled shipment cannot be accurately determined, then the entire commingled quantity is subject to the orders.

## Five-year reviews

Commerce has issued the final results of its expedited reviews with respect to all subject countries.<sup>20</sup> Tables I-5 presents the countervailable subsidy rates calculated by Commerce in its original investigation and first review for China. Tables I-6 and I-7 present the dumping margins calculated by Commerce in its original investigations and first reviews for Canada and China, respectively.

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<sup>16</sup> *Citric Acid and Certain Citrate Salts from the People's Republic of China: Final Results of Countervailing Duty Administrative Review*, 76 FR 77206, December 12, 2011.

<sup>17</sup> *Citric Acid and Certain Citrate Salts from the People's Republic of China; Notice of Countervailing Duty Order*, 74 FR 25705, May 29, 2009 and *Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China: Antidumping Duty Orders*, 74 FR 25703, May 29, 2009.

<sup>18</sup> *Memorandum from Christopher Siepmann, International Trade Analyst, to Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, “Citric Acid and Certain Citrate Salts: Scope Ruling for Calcium Citrate USP” (February 14, 2011).*

<sup>19</sup> *Memorandum from Christopher Siepmann, International Trade Analyst, to Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, “Citric Acid and Certain Citrate Salts: Final Determination on Scope Inquiry for Blended Citrate Acid from the People's Republic of China and Other Countries” (May 2, 2011).*

<sup>20</sup> *Citric Acid and Certain Citrate Salts From Canada and the People's Republic of China: Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders*, 79 FR 45763, August 6, 2014.

**Table I-5****CACCS: Commerce's original and first five-year countervailable subsidy rates for producers/exporters in China**

<b>Producer/exporter</b>	<b>Original margin (percent)</b>	<b>First five-year review margin (percent)</b>
TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.)	12.68	44.31
Yixing Union Biochemical Co., Ltd.	3.60	36.46
Anhui BBBCA Biochemical Co., Ltd.	118.95	150.58
All others	8.14	39.77

*Source: Citric Acid and Certain Citrate Salts From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value, 74 FR 16838, April 13, 2009 and Citric Acid and Certain Citrate Salts From the People's Republic of China: Final Results of Expedited Sunset Review of the Countervailing Duty Order, 79 FR 45761, August 6, 2014.*

**Table I-6****CACCS: Commerce's original and first five-year dumping margins for producers/exporters in Canada**

<b>Producer/exporter</b>	<b>Original margin (percent)</b>	<b>First five-year review margin (percent)</b>
Jungbunzlauer Canada Inc.	23.21	23.21
All others	23.21	23.21

*Source: Notice of Final Determination of Sales at Less Than Fair Value: Citric Acid and Certain Citrate Salts from Canada, 74 FR 16843, April 13, 2009 and Citric Acid and Certain Citrate Salts From Canada and the People's Republic of China: Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders, 79 FR 45763, August 6, 2014.*

**Table I-7**  
**CACCS: Commerce's original and first five-year dumping margins for producers/exporters in China**

<b>Producer/exporter</b>	<b>Original margin (percent)</b>	<b>First five-year review margin (percent)</b>
TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.)/TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.)	129.08	129.08
Yixing Union Biochemical Co., Ltd./Yixing Union Biochemical Co., Ltd.	94.61	94.61
Anhui BBCA Biochemical Co., Ltd./Anhui BBCA Biochemical Co., Ltd.	111.85	111.85
Anhui BBCA Biochemical Co., Ltd./China BBCA Maanshan Biochemical Corp.	111.85	111.85
A.H.A. International Co., Ltd./Yixing Union Biochemical Co., Ltd.	111.85	111.85
A.H.A. International Co., Ltd./Nantong Feiyu Fine Chemical Co., Ltd.	111.85	111.85
High Hope International Group Jiangsu Native Produce IMP & EXP Co., Ltd./Yixing Union Biochemical Co., Ltd.	111.85	111.85
Huangshi Xinghua Biochemical Co., Ltd./Huangshi Xinghua Biochemical Co., Ltd.	111.85	111.85
Lianyungang JF International Trade Co., Ltd./TTCA Co., Ltd. (a.k.a. Shandong TTCA Biochemistry Co., Ltd.)	111.85	111.85
Laiwu Taihe Biochemistry Co., Ltd./Laiwu Taihe Biochemistry Co., Ltd.	111.85	111.85
Lianyungang Shuren Scientific Creation Import & Export Co., Ltd./Lianyungang Great Chemical Industry Co., Ltd.	111.85	111.85
Penglai Marine Bio-Tech Co. Ltd./Penglai Marine Bio-Tech Co. Ltd.	111.85	111.85
RZBC Imp & Exp. Co., Ltd./RZBC Co., Ltd./RZBC (Juxian) Co., Ltd./RZBC Co., Ltd.	111.85	111.85
RZBC Imp & Exp. Co., Ltd./RZBC Co., Ltd./RZBC (Juxian) Co., Ltd./RZBC (Juxian) Co., Ltd.	111.85	111.85
RZBC Imp & Exp. Co., Ltd./RZBC Co., Ltd./RZBC (Juxian) Co., Ltd./Lianyungang Great Chemical Industry Co., Ltd.	111.85	111.85
Shihezi City Changyun Biochemical Co., Ltd./Shihezi City Changyun Biochemical Co., Ltd.	111.85	111.85
Weifang Ensign Industry Co., Ltd./Weifang Ensign Industry Co., Ltd.	111.85	111.85
All others	156.87	156.87

*Source: Citric Acid and Certain Citrate Salts from the People's Republic of China: Final Determination of Sales at Less Than Fair Value, 74 FR 16838, April 13, 2009 and Citric Acid and Certain Citrate Salts From Canada and the People's Republic of China: Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders, 79 FR 45763, August 6, 2014.*

## THE SUBJECT MERCHANDISE

### Commerce's scope

Commerce has defined the scope of the reviews as follows:

*{A}ll grades and granulation sizes of citric acid, sodium citrate, and potassium citrate in their unblended forms, whether dry or in solution, and regardless of packaging type. The scope also includes blends of citric acid, sodium citrate, and potassium citrate; as well as blends with other ingredients, such as sugar, where the unblended form(s) of citric acid, sodium citrate, and potassium citrate constitute 40 percent or more, by weight, of the blend.*

*The scope of this order also includes all forms of crude calcium citrate, including dicalcium citrate monohydrate, and tricalcium citrate tetrahydrate, which are intermediate products in the production of citric acid, sodium citrate, and potassium citrate. The scope of this order does not include calcium citrate that satisfies the standards set forth in the United States Pharmacopeia and has been mixed with a functional excipient, such as dextrose or starch, where the excipient constitutes at least 2 percent, by weight, of the product. The scope of this order includes the hydrous and anhydrous forms of citric acid, the dihydrate and anhydrous forms of sodium citrate, otherwise known as citric acid sodium salt, and the monohydrate and monopotassium forms of potassium citrate. Sodium citrate also includes both trisodium citrate and monosodium citrate which are also known as citric acid trisodium salt and citric acid monosodium salt, respectively.<sup>21 22</sup>*

### Tariff treatment

CACCS is classifiable in the Harmonized Tariff Schedule of the United States ("HTS") in several subheadings depending on chemical composition. Citric acid and sodium citrate are provided for *eo nomine* in subheadings 2918.14.00 and 2918.15.10 of the HTS, respectively. Potassium citrate and crude calcium citrate are classifiable in subheadings 2918.15.50 and 3824.90.92 (statistical reporting number 3824.90.9290), respectively. Blends that include citric acid, sodium citrate, and potassium citrate are also imported under statistical reporting number 3824.90.9290. Table I-8 presents current tariff rates for CACCS.

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<sup>21</sup> *Citric Acid and Certain Citrate Salts from Canada and the People's Republic of China: Antidumping Duty Orders*, 74 FR 25703, May 29, 2009.

<sup>22</sup> *Citric Acid and Certain Citrate Salts from the People's Republic of China: Notice of Countervailing Duty Order*, 74 FR 25705, May 29, 2009.

**Table I-8  
Citric acid and certain citrate salts: Tariff treatment, 2015**

HTS provision	Article description	General <sup>1</sup>	Special <sup>2</sup>	Column 2 <sup>3</sup>
		Rates ( <i>percent ad valorem</i> )		
2918	Carboxylic acids with additional oxygen function and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulfonated, nitrated or nitrosated derivatives:			
2918.14.00	Citric acid.....	6.0%	Free	39.5%
2918.15	Salts and esters of citric acid:			
2918.15.10	Sodium citrate.....	6.5%	Free	42.0%
2918.15.50	Other.....	3.7%	Free	25.0%

<sup>1</sup> Normal trade relations, formerly known as the most-favored-nation duty rate, applicable to China.

<sup>2</sup> Special rates are applicable to originating goods of Canada under the NAFTA. Other special rates apply to nonsubject countries. China is not eligible for the special rates.

<sup>3</sup> Applies to imports from a small number of countries that do not enjoy normal trade relations duty status.

Source: Harmonized Tariff Schedule of the United States (2015).

## THE PRODUCT

### Description and applications

The imported products subject to these reviews are citric acid and certain citrate salts, specifically sodium citrate and potassium citrate; blends containing citric acid, sodium citrate and potassium citrate; and crude calcium citrate (“CCC”). Citric acid, sodium citrate, and potassium citrate are all available in either dry form or in solution. CCC is an intermediate form in the production of citric acid via the lime/sulfuric acid process. CCC can be shipped to another facility for further processing into refined citric acid. Petitioners argued in the original investigations that the products have only minor molecular differences which do not significantly alter their essential characteristics or uses.

Citric acid, sodium citrate, and potassium citrate are chemical products used in the production and formulation of a wide variety of foods, beverages,<sup>23</sup> pharmaceuticals, and cosmetics as well as commercial and household products including detergents<sup>24</sup> and metal cleaners, and in textile finishing treatments and other industrial applications.<sup>25</sup>

<sup>23</sup> In addition to soft drinks, citric acid and trisodium citrate are used in noncarbonated beverages, powdered soft drinks, and flavored water. Hearing transcript, p. 101 (Hurt) and JBL’s posthearing brief, exh. 2, p. 1.

<sup>24</sup> In the summer of 2010, 17 states banned the use of phosphates in dishwashing detergents causing detergent makers to use significantly more citric acid and trisodium citrate in automatic dishwashing detergents. “Cleaner for the Environment, Not for the Dishes,” NY Times, September 18, 2010 and JBL posthearing brief, exh. 2, p. 1. Detergent makers had eliminated the use of phosphates in U.S. laundry

(continued...)

JBL Canada, the sole Canadian producer, manufactures primarily citric acid. It did \*\*\* during the original investigations; however, it started producing trisodium citrate in 2012. It ships citric acid in both dry and solution forms.

The Chinese producers manufacture primarily citric acid. A witness in the original investigations stated that China's limited resources of the sodium and potassium compounds used to make the subject salts render Chinese-produced salts less competitive in the U.S. market.<sup>26</sup>

### **Manufacturing processes**

Citric acid is produced in a two-stage process. In the first stage, sugars are fermented using a fermenting organism such as molds or yeasts. In the second stage, the crude citric acid is recovered and refined. Sodium citrate and potassium citrate are produced by reacting citric acid slurry with a solution containing certain sodium or potassium compounds (e.g., sodium hydroxide or potassium hydroxide).

The domestic producers stated during the original investigations that they produce sodium citrate and potassium citrate using some of the same equipment and workers that are used for citric acid.

Modern, large-scale production of citric acid is achieved through fermentation. The fermentation process involves the action of specific strains of organisms such as the *Aspergillus niger* mold or the *Candida lipolytica* or *Candida guilliermondii* yeast upon a substrate. Once the substrate is turned into glucose, it is fermented into crude citric acid by the organism. The yield of citric acid can be optimized through the careful control of fermentation conditions, such as temperature, acidity or alkalinity, dissolved air or oxygen, and the rate of stirring of the mixture. Each fermentation reaction is done in batch in large tanks which hold several thousand gallons and achieve a citric acid yield based on the weight of the sugar.

Producers ferment the substrate by one of three different methods: "shallow pan," "deep tank," or solid-state. Citric acid was originally produced using a shallow pan or liquid surface culture technology, where microbial fermentation occurred on the surface of the liquid. Some smaller, older Chinese plants may still use this technology. Most modern production of citric acid uses a deep tank or a submerged culture process, where the reaction is constantly agitated or stirred with air in order to allow the organism to grow throughout the mixture. The domestic producers use only the deep tank method. The submerged culture process is favored

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(...continued)

detergents in the mid-1990s, which similarly led to increased use of citric acid and trisodium citrate. Hearing transcript, pp. 154-5 (Rainville) and "P&G to Remove Major Pollutant from All Laundry Detergents," reviewed.com, January 28, 2014.

<http://laundry.reviewed.com/news/procterandgamblerremovesphosphatesfromtirelaundrydetergentline>.

<sup>25</sup> There is reportedly an emerging application for citric acid \*\*\*. JBL estimates that \*\*\* JBL posthearing brief, exh. 2, p. 2.

<sup>26</sup> Conference transcript, p. 171 (Hsu).

due to the economics of increased yields, although reaction conditions must be more tightly controlled. According to the domestic producers, solid-state fermentation is used only in Japan.

Cornstarch is the principal substrate in the United States, Canada, and China. U.S. producers also use molasses. Some Chinese producers also use cassava, sweet potato, or wheat.

The second stage of production, recovery and refining, is normally performed by one of three common processes: the lime/sulfuric acid method, the solvent extraction method, or the ion exchange method. All three of these processes are compatible with either the shallow pan or deep tank fermentation processes.

In the lime/sulfuric acid refining process, calcium hydroxide (lime) is added to the fermentation broth to precipitate out calcium citrate slurry, the CCC that is also part of the scope. After the calcium citrate is separated by filtration, it is washed to remove soluble impurities. The citrate is then mixed with sulfuric acid to produce a citric acid/charcoal slurry and gypsum (calcium sulfate). The citric acid is then purified through evaporation, crystallization, centrifugation, and drying. Most Chinese producers use this process.

The second common refining method is the solvent extraction process. This process does not involve the production of calcium citrate or gypsum. Instead, solvents separate the citric acid slurry from spent biomass. The subsequent processes of evaporation, crystallization, centrifugation, and drying are similar to those used in the lime/sulfuric acid process.

The third refining method, ion exchange, is a recent development. In this method, the slurry is passed through a bed of polymer-based resin. Ionic mineral elements such as calcium and magnesium adhere to the resin, thus removing them from the citric acid slurry. The subsequent steps are similar to the other two processes.

All three refining methods produce citric acid that is dissolved in water. The temperature used for the crystallization process determines whether the anhydrous or hydrous form is produced.

Producers can either sell the citric acid or convert it into salts. U.S. producers make dihydrate sodium citrate and anhydrous sodium citrate by diverting some of the citric acid slurry to a line dedicated to citric salt production, where the slurry is reacted with sodium hydroxide or sodium carbonate.

Similarly, potassium citrate is produced by reacting citric acid slurry with potassium hydroxide or potassium carbonate.

The dry forms of CACCS are packaged in polyethylene-lined paper bags, typically holding 50 pounds or 25 kilograms. "Super sacks" containing 500 to 2,000 pounds are also used. When preferred in solution form, CACCS is shipped in drums, railcars, or tank trucks. Drums are usually 200 to 275 pounds.

Sodium citrate and potassium citrate can also be produced by some distributors that are known as "converters." Converters can either provide citric acid as purchased from the manufacturer, or have the equipment on hand to blend sodium hydroxide or potassium hydroxide with citric acid, thus producing sodium citrate or potassium citrate, respectively.

Crude calcium citrate is an intermediate product of producers that use the lime/sulfuric acid refining method. During the original investigations, petitioners asserted, and respondents did not contradict them, that CCC has only one function - to be converted into citric acid. Petitioners stated in the original investigations that there is not a separate CCC market in the



United States or anywhere else around the globe, but they have been aware of instances when CCC was shipped from one country to another for further processing. Although there are no known imports of CCC, petitioners said in the original investigations that they included it in the scope of the petition to avoid circumvention.

## **DOMESTIC LIKE PRODUCT ISSUES**

In its original determinations, the Commission defined one domestic like product consisting of citric acid (whether in crude form as crude calcium citrate or in finished form), sodium citrate, and potassium citrate in all chemical and physical forms and grades.<sup>27</sup> In its notice of institution in these current five-year reviews, the Commission solicited comments from interested parties regarding the appropriate domestic like product and domestic industry.<sup>28</sup> According to their response to the notice of institution, the domestic interested parties and JBL concur with this definition.<sup>29</sup>

## **U.S. MARKET PARTICIPANTS**

### **U.S. producers**

During the original investigations, three firms provided the Commission with information on their U.S. operations with respect to CACCS. These firms accounted for all U.S. production of CACCS in 2008.<sup>30</sup> In these current proceedings, the Commission issued U.S. producers' questionnaires to three firms, all of which provided the Commission with information on their CACCS operations. These firms are believed to account for all U.S. production of CACCS in 2013. Table I-9 presents a list of current domestic producers of CACCS, each company's position on continuation of the orders, production locations, and share of reported production of CACCS in 2013.

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<sup>27</sup> *Citric Acid and Certain Citrate Salts from Canada and China, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final)*, USITC Publication 4076, May 2009, p. 9.

<sup>28</sup> *Citric Acid and Certain Citrate Salts from Canada and China; Institution of Five-Year Reviews*, 79 FR 18311, April 1, 2014.

<sup>29</sup> *Domestic Interested Parties' Response to the Notice of Institution*, May 1, 2014, p. 35; *JBL's Response to the Notice of Institution*, April 30, 2014, p. 27.

<sup>30</sup> Petitioners ADM, Cargill, and Tate & Lyle supplied the Commission with usable questionnaire information during the original investigations.

**Table I-9**

**CACCS: U.S. producers, their positions on the orders, U.S. production locations, and shares of 2013 reported U.S. production**

<b>Firm</b>	<b>Position</b>	<b>Production location(s)</b>	<b>Share of production (percent)</b>
ADM	Support	Southport, NC	***
Cargill	Support	Eddyville, IA	***
Tate & Lyle	Support	Dayton, OH	***
Total			100.0

Source: Compiled from data submitted in response to Commission questionnaires.

No U.S. producer is related to foreign producers or U.S. importers of CACCS. Two U.S. producers (\*\*\*) directly import CACCS from nonsubject sources and one (\*\*\*) purchases CACCS from U.S. importers.

### **U.S. importers**

In the original investigations, 31 U.S. firms supplied the Commission with usable information on their operations involving the importation of CACCS, accounting for 100 percent of U.S. imports of CACCS from Canada, 86.5 percent of U.S. imports from China, and 55.9 percent of U.S. imports from nonsubject countries in 2008. Of the responding U.S. importers, one was a domestic producer (\*\*\*). \*\*\*, JBL \*\*\* imported citric acid from Canada in 2008. Data for U.S. imports from Canada were compiled using the reported U.S. imports of JBL, the U.S. importer of Canadian product which accounted for \*\*\* U.S. imports from Canada, \*\*\*. Data for U.S. imports from China and nonsubject countries were compiled using official Commerce statistics.<sup>31</sup>

In the current proceedings, the Commission issued U.S. importers' questionnaires to 70 firms believed to be importers and/or purchasers of CACCS, as well as to all U.S. producers of CACCS. Usable questionnaire responses were received from 19 firms, representing 100 percent of U.S. imports from Canada and \*\*\* percent of imports from China. Table I-10 lists all responding U.S. importers of CACCS, their locations, and their shares of U.S. imports from 2009 to September 2014.

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<sup>31</sup> *Citric Acid and Certain Citrate Salts from Canada and China*, Confidential Staff Report, INV-GG-036, April 27, 2009, pp. I-3-4.

**Table I-10**  
**CACCS: U.S. importers, their headquarters, and share of total imports by source, 2009-13, and January-September 2014**

Firm	Headquarters	Share of imports by source (percent)				
		Canada	China	Subject sources	All other sources	All sources
APAC Chemical	Arcadia, CA	***	***	***	***	***
Brenntag	Reading, PA	***	***	***	***	***
Cargill	Eddyville, IA	***	***	***	***	***
Coca-Cola	Atlanta, GA	***	***	***	***	***
FBC	Schaumburg, IL	***	***	***	***	***
Fooshing	Walnut, CA	***	***	***	***	***
Gadot	Mahwah, NJ	***	***	***	***	***
JBL	Newton Centre, MA	***	***	***	***	***
Mitsubishi	Dublin, OH	***	***	***	***	***
Omni Chem	Indianapolis, IN	***	***	***	***	***
Palm	La Vergne, TN	***	***	***	***	***
PHT	Charlotte, NC	***	***	***	***	***
Prinova	Carol Stream, IL	***	***	***	***	***
Stauber	Fullerton, CA	***	***	***	***	***
Tate & Lyle	Decatur, IL	***	***	***	***	***
TR international	Seattle, WA	***	***	***	***	***
Vivion	San Carlos, CA	***	***	***	***	***
Wego	Great Neck, NY	***	***	***	***	***
Zhong Ya	Piscataway, NJ	***	***	***	***	***
Total		***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

### U.S. purchasers

The Commission received 26 usable questionnaire responses from firms that bought CACCS during the review period.<sup>32</sup> Eighteen responding purchasers are end users, eight are distributors, and one is a producer of CACCS. Responding U.S. purchasers were located throughout the United States with a large number of firms in the Midwest (particularly Ohio and Illinois). The responding purchasers represented firms in a variety of domestic industries, including manufacturers of beverages, foods, detergents, and industrial products. The largest purchasers were \*\*\*.<sup>33</sup> These seven firms' purchases accounted for 47 percent of U.S. apparent consumption in 2013.

<sup>32</sup> Twenty-four of the 26 purchasers reported purchasing CACCS in 2013. Twenty of the 24 firms purchased the domestic product, 11 purchased imports from Canada, 6 purchased imports from China, and 13 purchased imports from other countries.

<sup>33</sup> \*\*\*.

## APPARENT U.S. CONSUMPTION

Data concerning apparent U.S. consumption of CACCS are shown in table I-11.

**Table I-11**  
**CACCS: U.S. shipments of domestic CACCS, U.S. shipments of imports, and apparent U.S. consumption, 2009-13, January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
U.S. producers' U.S. shipments	392,290	403,796	470,746	460,167	444,282	342,483	367,705
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	130,991	202,985	168,210	173,889	193,820	150,112	152,407
Total U.S. imports	***	***	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***	***	***
	<b>Value (1,000 dollars)</b>						
U.S. producers' U.S. shipments	327,478	324,663	366,468	360,348	343,010	267,086	256,493
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	122,040	168,191	147,607	148,710	157,556	123,017	115,872
Total U.S. imports	***	***	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

## U.S. MARKET SHARES

U.S. market share data are presented in table I-12.

**Table I-12**  
**CACCS: U.S. consumption and market shares, 2009-13, January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
Apparent U.S. consumption	***	***	***	***	***	***	***
	<b>Share of quantity (percent)</b>						
U.S. producers' U.S. shipments	***	***	***	***	***	***	***
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total U.S. imports	***	***	***	***	***	***	***
	<b>Value (1,000 dollars)</b>						
Apparent U.S. consumption	***	***	***	***	***	***	***
	<b>Share of value (percent)</b>						
U.S. producers' U.S. shipments	***	***	***	***	***	***	***
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total U.S. imports	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.



## PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

### U.S. MARKET CHARACTERISTICS

The main end-use markets for CACCS are food and beverages (especially carbonated beverages), industrial (including detergents and cleaners), and pharmaceuticals/cosmetics. Data from IHS, an industry analysis firm, show that in 2012, 65 percent of U.S. consumption of citric acid was for food and beverages, 23 percent household detergents/cleaners, 5 percent pharmaceuticals, 2 percent cosmetics, and 5 percent industrial and other uses.<sup>1</sup>

CACCS must meet FCC standards for use in food and beverages and USP standards for use in pharmaceuticals.<sup>2</sup> In the original investigations, U.S. producers and JBL Canada reported that they manufacture CACCS to meet FCC/USP standards regardless of the end use, and petitioners stated that there is no price premium for CACCS sold for food and beverages.<sup>3</sup> All of JBL's production of CACCS in Canada is food grade.<sup>4</sup>

Apparent U.S. consumption of CACCS increased during the review period. Overall, apparent U.S. consumption in 2013 was \*\*\* percent higher than in 2009, with the largest increase in consumption occurring between 2009 and 2010.

### CHANNELS OF DISTRIBUTION

More than 80 percent of U.S. producers' commercial shipments went to end users during each year of the review period (table II-1). \*\*\*. Most imports of Chinese product went to end users. Nonsubject imports went to both end users and distributors, with a majority going to end users during 2011-13.

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<sup>1</sup> IHS lists industrial as a separate category from household detergents and cleaners whereas the Commission's questionnaire included detergents and cleaners as a subcategory of industrial. IHS data show that within the food and beverage category, \*\*\* percent went to beverages, \*\*\* percent food, \*\*\* percent cheese and dairy, and \*\*\* percent other. IHS, *Chemical Economics Handbook*, February 2013, p. 20. Questionnaire data for 2013 indicate that 57 percent of total U.S. shipments reported by producers and importers were to food and beverages, 32 percent to industrial (household detergents and cleaners, and other industrial), 4 percent to pharmaceuticals (including beauty, oral hygiene and cosmetics), and 7 percent to other markets.

<sup>2</sup> U.S. Food and Drug Administration's Food Chemical Codex ("FCC") and U.S. Pharmacopoeia ("USP").

<sup>3</sup> *Citric Acid and Certain Citrate Salts from Canada and China, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final)*, USITC Publication 4076, May 2009, p. II-1.

<sup>4</sup> Hearing transcript, p. 152 (Rainville).

**Table II-1**

**CACCS: U.S. producers' and importers' share of reported U.S. commercial shipments, by sources and channels of distribution, 2009-13 and January to September 2013 and January to September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	Share of quantity (percent)						
U.S. producers' commercial U.S. shipments to:							
Distributors	17.7	17.5	19.5	17.1	16.3	16.0	13.6
End users	82.3	82.5	80.5	82.9	83.7	84.0	86.4
U.S. importers' commercial U.S. shipments of imports from Canada to:							
Distributors	***	***	***	***	***	***	***
End users	***	***	***	***	***	***	***
U.S. importers' commercial U.S. shipments of imports from China to:							
Distributors	***	***	***	***	***	***	***
End users	***	***	***	***	***	***	***
U.S. importers' commercial U.S. shipments of imports from all other sources to:							
Distributors	***	***	***	***	***	***	***
End users	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

## GEOGRAPHIC DISTRIBUTION

U.S. producers and importers of Canadian product reported selling CACCS to all U.S. regions, and importers of Chinese product reported selling to all regions in the continental United States (table II-2). For U.S. producers, about 9 percent of sales were within 100 miles of their production facility, 76 percent were between 101 and 1,000 miles, and 14 percent were over 1,000 miles. The importer of Canadian product sold \*\*\* percent within 100 miles of its U.S. point of shipment, \*\*\* percent between 101 and 1,000 miles, and \*\*\* percent over 1,000 miles. Importers of Chinese product sold \*\*\* percent within 100 miles of their U.S. point of shipment, \*\*\* percent between 101 and 1,000 miles, and \*\*\* percent over 1,000 miles.



**Table II-2**  
**CACCS: Geographic market areas in the United States served by U.S. producers and importers**

Region	U.S. producers	U.S. importers	
		Canada	China
Northeast	3	***	5
Midwest	3	***	6
Southeast	3	***	5
Central Southwest	3	***	5
Mountains	3	***	5
Pacific Coast	3	***	8
Other <sup>1</sup>	3	***	0
All regions in the continental United States	3	***	4

<sup>1</sup> All other U.S. markets, including AK, HI, PR, and VI, among others.

Source: Compiled from data submitted in response to Commission questionnaires.

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. supply

#### Domestic production

Based on available information, U.S. producers of CACCS have the ability to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced CACCS to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the availability of unused capacity, moderated by the lack of alternate markets and inability to produce alternate products.

#### Industry capacity

Domestic capacity utilization decreased overall during the review period from 91.8 percent in 2009 to 86.3 percent in 2013. The decline in capacity utilization was the result of an increase in capacity and a decline in production. This level of capacity utilization suggests that U.S. producers may have some ability to increase CACCS production in response to an increase in prices.

#### Alternative markets

All three U.S. producers reported exporting to Canada and Mexico; \*\*\*. U.S. producers' exports declined from 55.8 million pounds (12.5 percent of their total shipments) in 2009 to 35.5 million pounds (7.4 percent of their total shipments) in 2013. U.S. producers stated that it would be difficult to shift their shipments to other markets because of the E.U.'s non-GMO requirements, inability to compete with Chinese product in other export markets, lack of

customer relationships outside of North America, existing contractual obligations with U.S. customers, and low global prices.

### ***Inventory levels***

U.S. producers' inventories declined from \*\*\* percent of total shipments in 2009 to \*\*\* percent in 2011 and then increased to \*\*\* percent in 2013. These inventory levels suggest that U.S. producers may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

### ***Production alternatives***

U.S. producers reported that they did not produce any other products on the equipment used to produce CACCS.

### ***Supply constraints***

Seven of the 26 responding purchasers indicated that a firm had been unable to supply CACCS during the review period. Some of these firms noted general supply outages, but did not specify the supplier. Several firms reported supply issues with Tate & Lyle in 2013 and 2014, and one reported supply issues with Cargill. \*\*\* reported that it purchased Canadian product on the spot market from U.S. distributors to have adequate supply because of U.S. producers' production issues. It also reported that \*\*\*.<sup>5</sup>

Among U.S. producers, ADM reported that it had no supply issues during the review period, Cargill reported that in 2011 or 2012 it had a minor amount of product that it had to source from Brazil to supply its customers, and Tate & Lyle reported some production difficulties in 2014 but not in 2013.<sup>6</sup>

### **Subject imports from Canada**

Information in this section is based on the questionnaire response of one foreign producer, JBL, which accounts for all production of CACCS in Canada. Based on available information, the Canadian producer has the ability to respond to changes in demand with moderate changes in the quantity of shipments of CACCS to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and the existence of alternate markets.

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<sup>5</sup> \*\*\*. Domestic producers' posthearing brief, Answers to Questions from the Commission, pp. 11-12, and exh. 4.

<sup>6</sup> Hearing transcript, pp. 94-95 (Aud, Kotula, and Hurt). In U.S. producer questionnaire responses, \*\*\*.

### **Industry capacity**

JBL's capacity to produce CACCS increased from \*\*\* pounds in 2009 to \*\*\* pounds in 2013.<sup>7</sup> Its capacity utilization increased from \*\*\* percent in 2009 to \*\*\* percent in 2011 and then declined to \*\*\* percent in 2013. This level of capacity utilization suggests that JBL may have a moderate ability to increase production of product in response to an increase in prices.

### **Alternative markets**

The U.S. market remains JBL's largest market for CACCS, although the share of JBL's total shipments that went to the U.S. market declined from \*\*\* percent in 2009 to \*\*\* percent in 2013. JBL's shipments to the Canadian home market were relatively steady and its shipments to the E.U. market \*\*\* were small, except in 2011.<sup>8</sup> JBL increased its shipments to \*\*\* during the review period.<sup>9</sup> \*\*\*.<sup>10</sup>

### **Inventory levels**

JBL's inventories in Canada ranged from \*\*\*.

### **Production alternatives**

\*\*\*.

### **Subject imports from China**

Information in this section is based on industry publications since no producers in China responded to the Commission's questionnaire. Based on available information, Chinese producers of CACCS have the ability to respond to changes in demand with large changes in the quantity of shipments of CACCS to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and existence of alternate markets.

China is the world's largest producer and exporter of CACCS. There are approximately 20 major producers in China with a total annual capacity of \*\*\* million metric tons (\*\*\* million pounds). Capacity utilization in China was estimated at about \*\*\* percent in 2012. Exports account for more than \*\*\* percent of production. Major markets include Europe, the United States, Japan, and Southeast Asia.<sup>11</sup>

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<sup>7</sup> \*\*\*.

<sup>8</sup> JBL serves the E.U. market with its facility in Austria.

<sup>9</sup> JBL noted in its questionnaire response that \*\*\*.

<sup>10</sup> \*\*\*. JBL's posthearing brief, exh. 1, p. 56.

<sup>11</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 89-92. *IHS Chemical China Report: Citric Acid*, April 2013, p. 9.

## **Nonsubject imports**

The largest sources of nonsubject imports during 2009-13 were Thailand, Israel, Belgium, and Colombia. Combined, these countries accounted for 86 percent of nonsubject imports in 2013.

## **New suppliers**

Almost half of reporting purchasers (12 of 26) indicated that new suppliers entered the U.S. market since January 1, 2009, and 8 expect additional entrants. Several purchasers named suppliers of product from Thailand including COFCO, Niran, and Sunshine. Other suppliers mentioned as recent or likely entrants into the U.S. market were Citrique (Belgium), Gadot, RZBC (Hungary), and Sucoral (Colombia).

## **U.S. demand**

Based on available information, the overall demand for CACCS is likely to experience small changes in response to changes in price. The main contributing factors are the lack of substitute products and the small cost share of CACCS in its end-use products.

## **End uses**

U.S. demand for CACCS depends on the demand for U.S.-produced downstream products. As noted previously, the largest end use for CACCS is carbonated beverages. Other major uses include other beverages, food, detergents, cleaners, personal care products, and pharmaceuticals. Almost all responding firms (all U.S. producers, 15 of 16 importers, and 21 of 23 purchasers) reported no changes in end uses during the review period.<sup>12</sup>

## **Business cycles**

The two responding U.S. producers, 5 of 15 importers, and 7 of 21 purchasers indicated that the market was subject to business cycles. These firms reported seasonality in the CACCS market due to higher beverage consumption in spring and summer. Demand for CACCS by beverage manufacturers is highest from April to August, with the slowest period September to December.<sup>13</sup> However, U.S. producers and JBL generally negotiate annual contracts with purchasers in November and December of each year.<sup>14</sup>

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<sup>12</sup> Of the three firms reporting changes, one importer reported a new customer that uses citric acid in fertilizer, and two purchasers reported increased CACCS use in certain product lines, \*\*\*.

<sup>13</sup> Preliminary investigation, conference transcript, p. 122 (Waite). IHS, *Chemical Economics Handbook*, February 2013, p. 37. Increased use of CACCS in sports drinks and teas which are consumed year-round has somewhat moderated seasonal demand fluctuations. Manufacturers may purchase citric acid early in the year.

<sup>14</sup> Hearing transcript, p. 36 (O'Dwyer) and p. 153 (Rainville).

Several firms reported other conditions of competition besides seasonality. \*\*\* noted that CACCS production is capital intensive with facilities intended to operate continuously and that price changes do not have much impact on demand for the product. Purchasers reported the following additional conditions of competition: citric acid replacing phosphates in detergents because of EPA regulations; citric acid prices related to corn prices; and periodic plant outages at Tate & Lyle and Cargill.

Two of 3 producers, 5 of 10 importers, and 8 of 14 purchasers reported changes in conditions of competition during the review period. Producer \*\*\* noted that since the imposition of the duties, Chinese supply to the U.S. market has declined and the prices of imports from China and Canada have increased, resulting in higher contract and spot prices for \*\*\*. \*\*\* reported that Chinese material was shipped from Thailand to circumvent the order. Among purchasers, \*\*\* reported less competition in the market, \*\*\* reported greater supply and an 18 percent drop in prices, \*\*\* reported that drought affected corn supply and that there was competition from low-priced suppliers of product from Southeast Asia, and \*\*\* reported a lack of U.S. producer capacity because of production issues. Purchasers also noted variations in the corn crop over the period.

## **Demand trends**

Most firms reported that U.S. demand for CACCS increased or had not changed since January 1, 2009 (table II-3). U.S. producers anticipate that U.S. demand will decrease; \*\*\* anticipates that U.S. demand will increase; and importers and purchasers were divided on their expectations for future U.S. demand.

U.S. producer \*\*\* expects that overall CACCS demand will be flat to declining because of flat to declining demand for CACCS in beverages and detergents. \*\*\*,<sup>15</sup>

Eight purchasers reported an increase in CACCS demand during the review period while an equal number reported no change in demand. Reasons cited for increased demand were new housing construction (where CACCS is used in insulation), increase in product offerings containing CACCS, potential new demand for CACCS in fracking chemicals to control pH, and population growth. One purchaser reported that increased use of CACCS in oil drilling was offset by a decrease in dry beverage powders and another purchaser reported reduced consumption of sodas and noncarbonated beverages.

According to domestic producers, demand for CACCS is unlikely to increase because sales of soft drinks, the largest end use for citric acid, are declining.<sup>16</sup> JBL asserts that demand was healthy during the review period and is projected to continue to increase.<sup>17</sup>

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<sup>15</sup> IHS, *Chemical Economics Handbook*, February 2013, pp. 20, 25.

<sup>16</sup> Domestic producers' prehearing brief, p. 10.

<sup>17</sup> JBL's prehearing brief, p. 40.

**Table II-3**  
**CACCS: Firms' responses regarding U.S. demand**

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand in the United States:				
U.S. producers	2	0	1	0
Importers	5	5	2	4
Purchasers	8	8	2	4
Foreign producers	1	0	0	0
Anticipated future demand in the United States:				
U.S. producers	0	0	3	0
Importers	3	5	2	6
Purchasers	4	9	3	6
Foreign producers	1	0	0	0
Demand for purchasers' final products:				
Purchasers	7	4	2	6

*Source:* Compiled from data submitted in response to Commission questionnaires.

### **Substitute products**

Substitutes for CACCS are limited. Nearly all firms (all 3 responding U.S. producers, all 16 responding importers, and 19 of 22 responding purchasers) reported that there were no substitutes. Three purchasers reported that malic acid, tartaric acid, and ascorbic acid could be substituted in certain beverages and foods. However, these purchasers also noted that malic acid and tartaric acid were priced higher than citric acid, and that in most cases substitutes cannot be used in place of citric acid without changing the flavor.

### **Cost share**

CACCS generally accounts for a small share of the cost of the end-use products in which it is used. Reported cost shares for some end uses were as follows: beverages, 1 to 4 percent; beverage flavors/drink mixes, 30 to 40 percent; processed cheese, 1 to 4 percent; detergents, 1 to 5 percent; snack foods, 1 to 6 percent; condiments, 10 to 20 percent; insulation, 15 percent; and water softening pellets, 1 percent.

### **SUBSTITUTABILITY ISSUES**

The degree of substitution between domestic and imported CACCS depends upon such factors as relative prices, quality (e.g., chemistry, appearance, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, payment terms, product services, etc.). Based on available data, staff believes that there is moderate to high degree of substitutability between domestically produced CACCS and CACCS imported from subject sources.

## Lead times

CACCS is primarily sold from inventory. Nearly all U.S. producers' shipments were from inventory, with lead times of 7 days for \*\*\* and 14 days for \*\*\*. Importer \*\*\*. Importers of Chinese product reported that 85 percent of their commercial shipments were from U.S. inventories with lead times averaging 5 days, and the remainder was from foreign inventories.

## Knowledge of country sources

Twenty-two purchasers indicated they had marketing/pricing knowledge of domestic product, 13 of Canadian product, 11 of Chinese product, and 14 of product from nonsubject countries. More than half of purchasers "always" or "usually" make purchasing decisions based on the producer but less often make purchasing decisions based on country of origin (table II-4). General reasons cited for basing purchases on producer or country of origin include: qualified supplier requirements, preference for domestic for liquid products since shipping costs are lower, and purchasing on a global/regional basis. Reasons for purchasing from specific suppliers included: Cargill (quality), JBL (meets our product and quality specifications), ADM (specified by customer), and Citrique Belge/COFCO (GMO-free requirements and lower price than domestic). Factors purchasers consider include quality, cost, lead times, packaging, Global Food Safety Initiative (GFSI) compliance, payment terms, supply reliability, and logistics costs.

**Table II-4**

**CACCS: Purchasing decisions based on producer and country of origin**

Decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	6	8	5	6
Purchaser's customers make decision based on producer	3	2	4	8
Purchaser makes decision based on country	4	6	7	8
Purchaser's customers make decision based on country	2	2	6	9

*Source:* Compiled from data submitted in response to Commission questionnaires.

## Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for CACCS were quality (21 firms), price (27 firms), supply reliability (8 firms), and availability (6 firms) as shown in table II-5. Quality was the most frequently cited first-most important factor (cited by 18 firms), followed by price (7 firms); price was the most frequently reported second-most important factor (11 firms); and price was the most frequently reported third-most important factor (9 firms). Eleven of 25 purchasers reported that they only sometimes purchase the lowest-priced product, 10 answered "usually," 4 answered "never," and no firm answered "always."

**Table II-5**  
**CACCS: Ranking of factors used in purchasing decisions as reported by U.S. purchasers**

Factor	First	Second	Third	Total
Quality	18	2	1	21
Price	7	11	9	27
Availability	0	2	4	6
Compliance with specifications	3	0	0	3
Supply/reliability/dependability	0	5	3	8
Payment terms	1	0	2	3
Other <sup>1</sup>	0	4	4	8

<sup>1</sup> Other factors include product form (liquid vs solid) and product range and contract liability terms and lead time for second factor, and distribution network/lead time, consistency, delivery flexibility, and strategic fit for third factor. Note that price includes “total delivered cost” and “price firmness.”

Source: Compiled from data submitted in response to Commission questionnaires.

Sixteen purchasers reported reasons for purchasing CACCS from one source although a comparable product was available at a lower price from another source. Reasons were: China is too far away; Cargill’s pricing is superior to China; customer requirement; always bought domestic product because of price but would consider a lower-priced foreign option; require liability coverage from supplier; delivery flexibility, quality, supplier reliability, technical support; only purchase from approved sources (Austria and Germany); prefer domestic product for shorter supply chain, rail deliveries, consistent quality; quality, availability, reliability (Colombia and Thailand); quality; on time delivery; customer service; specification; delivery time; production capacity; customer preference; contract volume requirements; and purchase higher priced material from China to have multiple suppliers to minimize supply risk.

Only four of 22 purchasers reported that certain types of CACCS, such as GMO-free product and product of a particular size granulation, were available only from a single source. Specifically, \*\*\* reported that strippable bags were only available from Canada and Belgium, and that non-GMO product was only available from Thailand (which uses tapioca instead of corn to produce CACCS). \*\*\* reported that only JBL offers a granulation that works in its product.

### **Importance of specified purchase factors**

Purchasers were asked to rate the importance of 15 factors in their purchasing decisions (table II-6). The factors rated as “very important” by more than half of responding purchasers were reliability of supply (26 firms), price (25), availability (25), product consistency (24), quality meets industry standards (23), and delivery time (18).



**Table II-6**  
**CACCS: Importance of purchase factors, as reported by U.S. purchasers, by factor**

Factor	Number of firms reporting		
	Very Important	Somewhat Important	Not Important
Availability	25	1	0
Delivery terms	8	14	4
Delivery time	18	6	2
Discounts offered	4	15	7
Extension of credit	3	11	12
Minimum quantity requirements	4	10	12
Packaging	12	10	4
Price	25	1	0
Product consistency	24	1	1
Product range	6	13	7
Quality exceeds industry standards	10	9	7
Quality meets industry standards	23	2	1
Reliability of supply	26	0	0
Technical support/service	12	9	5
U.S. transportation costs	13	11	2

Source: Compiled from data submitted in response to Commission questionnaires.

### Supplier certification

Nearly all (22 of 26) responding purchasers require their suppliers to become certified or qualified to sell CACCS to their firm. Fifteen purchasers reported that the time to qualify a new supplier ranged from 90 to 180 days, four reported 30 days or less, one reported 270 days, and one reported 365 days. Three purchasers reported that a supplier had failed in its attempt to qualify product, or had lost its approved status since January 1, 2009. \*\*\* reported that product from Cargill and from RZBC China did not meet its specifications; \*\*\* reported that product from Sunshine and Niran did not qualify for quality reasons and inability to produce required grades; and \*\*\* reported that product from India failed to qualify.

### Changes in purchasing patterns

Thirteen of 25 responding purchasers had purchased CACCS from Canada prior to 2009, 10 had purchased from China, and 9 had not purchased from either subject country. Only one of the 13 firms that had purchased CACCS from Canada prior to 2009 reported that it discontinued purchasing CACCS from Canada because of the orders and no firms reported decreased purchases from Canada because of the orders. On the other hand, four purchasers reported reducing purchases and 3 reported discontinuing purchases from China because of the orders. Five purchasers reported that they had increased their purchases of CACCS from nonsubject countries because of the orders.

During the review period, most purchasers reported that their purchases from domestic producers increased or stayed the same and that they did not purchase product from China, or they decreased their purchases of imports from China (table II-7). Responses regarding Canada

were more mixed, with four purchasers reporting decreased purchases and 6 reporting increased purchases.

**Table II-7**

**CACCS: Changes in purchase patterns from U.S., subject, and nonsubject countries**

Source	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	3	1	11	6	3
Canada	6	4	6	3	0
China	9	6	2	2	0
All other sources	8	1	6	4	1

Source: Compiled from data submitted in response to Commission questionnaires.

Almost half of responding purchasers (12 of 25) reported that they had changed suppliers since January 1, 2009. General reasons for changing suppliers were price, availability, and quality. \*\*\* reported shifting supply among the three domestic producers because of pricing and availability. \*\*\* reported that it switched purchasing \*\*\* from ADM to JBL in 2011 because of price and then switched back to ADM in 2012 as pricing became more competitive.<sup>18</sup> \*\*\* dropped Worldbest Biochemical in 2010 due to a plant shutdown and added BBFY Industrial USA and Zhongya in 2012. \*\*\* added Indonesian and Thai suppliers because of the order on China. \*\*\* added JBL to improve supply continuity. \*\*\* increased its purchases from JBL Canada because of production problems with Tate & Lyle and Cargill in 2012 and 2014, \*\*\*. \*\*\*.

**Importance of purchasing domestic product**

Most purchasers reported that they did not require domestic product for their CACCS purchases. Less than 4 percent of purchasers' reported 2013 purchases required domestic product. Reasons cited for preferring domestic product included purchasing liquid citric acid shipped by rail and reducing cost by having supply chain close to manufacturing plants.

**Comparisons of domestic products, subject imports, and nonsubject imports**

Purchasers were asked a number of questions comparing CACCS produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 15 factors (table II-8) for which they were asked to rate the importance.

Most purchasers reported that U.S. and Canadian product were comparable on all factors. Purchasers generally reported that U.S. and Chinese product were comparable, except a majority or plurality reported that the domestic product was superior with respect to delivery

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<sup>18</sup> \*\*\*.

time and technical support/service, and purchasers provided mixed responses with respect to delivery terms and U.S. transportation costs.

**Table II-8**  
**CACCS: Purchasers' comparisons between U.S.-produced and imported product**

Factor	Number of firms reporting								
	U.S. vs. Canada			U.S. vs. China			Canada vs. China		
	S	C	I	S	C	I	S	C	I
Availability	1	13	2	4	11	0	5	10	0
Delivery terms	2	14	0	6	8	2	5	11	1
Delivery time	3	13	0	11	2	3	8	7	2
Discounts offered	1	9	1	3	6	2	3	10	0
Extension of credit	1	11	0	4	7	1	3	11	0
Minimum quantity requirements	0	14	0	2	10	2	2	12	1
Packaging	0	15	0	2	13	0	2	13	0
Price <sup>1</sup>	2	10	4	1	10	5	0	13	3
Product consistency	1	15	0	4	13	1	2	12	2
Product range	0	15	1	4	12	0	4	11	0
Quality exceeds industry standards	0	14	0	2	12	0	3	10	1
Quality meets industry standards	0	15	0	1	14	0	2	12	1
Reliability of supply	3	11	1	6	9	1	4	10	1
Technical support/service	2	13	1	9	7	1	6	8	2
U.S. transportation costs <sup>1</sup>	4	10	0	7	6	1	7	6	1
	U.S. vs. Nonsubject			Canada vs. Nonsubject			China vs. Nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	5	8	0	3	4	0	0	8	0
Delivery terms	6	7	0	3	4	0	0	8	0
Delivery time	10	3	1	3	3	1	0	8	0
Discounts offered	3	4	1	2	3	0	0	6	0
Extension of credit	4	4	1	3	3	0	0	7	0
Minimum quantity requirements	2	7	1	1	4	1	0	7	0
Packaging	3	11	0	2	5	0	0	8	0
Price <sup>1</sup>	2	5	6	0	5	1	0	7	0
Product consistency	4	9	0	3	3	1	1	7	0
Product range	6	7	0	4	2	1	0	8	0
Quality exceeds industry standards	3	8	0	3	3	0	0	6	0
Quality meets industry standards	2	10	0	2	4	0	0	8	0
Reliability of supply	4	9	0	3	4	0	0	8	0
Technical support/service	7	6	1	4	3	0	0	8	0
U.S. transportation costs <sup>1</sup>	7	3	1	4	2	0	0	7	0

<sup>1</sup> A rating of superior means that price/U.S. transportation costs is generally lower. For example, if a firm reported "U.S. superior," it meant that the U.S. product was generally priced lower than the imported product.

Note.--S=first listed country's product is superior; C=both countries' products are comparable; I=first list country's product is inferior.

Source: Compiled from data submitted in response to Commission questionnaires.

## Comparison of U.S.-produced and imported CACCS

In order to determine whether U.S.-produced CACCS can generally be used in the same applications as imports from Canada and China, U.S. producers, importers, and purchasers were asked whether the products can “always,” “frequently,” “sometimes,” or “never” be used interchangeably. As shown in table II-9, all U.S. producers reported that domestic product and imported product from Canada and China were always interchangeable. A majority of responding importers and purchasers reported that the products were always or frequently interchangeable.

**Table II-9**  
**CACCS: Interchangeability between CACCS produced in the United States and in other countries, by country pairs**

Country pair	U.S. producers				U.S. importers				U.S. purchasers			
	A	F	S	N	A	F	S	N	A	F	S	N
United States vs. China	3	0	0	0	4	7	4	0	7	6	6	0
United States vs. Canada	3	0	0	0	9	0	1	0	13	3	2	0
Canada vs. China	3	0	0	0	4	4	2	0	4	5	5	0
United States vs. Belgium	3	0	0	0	8	1	2	0	9	3	0	1
United States vs. Israel	3	0	0	0	4	2	1	0	7	1	2	1
United States vs. Thailand	3	0	0	0	4	4	5	0	5	3	4	2
United States vs. Other	3	0	0	0	3	6	2	0	6	1	1	1
China vs. Belgium	3	0	0	0	5	4	2	0	6	3	2	0
China vs. Israel	3	0	0	0	3	3	1	0	5	1	1	0
China vs. Thailand	3	0	0	0	5	4	4	0	4	3	3	1
China vs. Other	3	0	0	0	3	6	2	0	5	1	1	0
Canada vs. Belgium	3	0	0	0	7	1	1	0	7	3	0	1
Canada vs. Israel	3	0	0	0	4	1	1	0	5	1	0	1
Canada vs. Thailand	3	0	0	0	4	3	3	0	3	3	2	2
Canada vs. Other	3	0	0	0	3	3	2	0	4	1	0	1

Note.—A=Always, F=Frequently, S=Sometimes, N=Never.

Source: Compiled from data submitted in response to Commission questionnaires.

Among purchasers, \*\*\* reported that products from China and Thailand were sometimes interchangeable with domestic and Canadian product because some customers only accept domestic product. \*\*\* reported that CACCS from some nonsubject countries that has not gone through its qualification process may not be interchangeable. \*\*\* reported that because of the long supply chain from China, citric acid can become hygroscopic and not free flowing. \*\*\* reported that interchangeability among sources can be limited because of particle size requirements. \*\*\* reported that Canadian and Belgian CACCS were always interchangeable with domestic product, product from China was frequently interchangeable, and product from Thailand was only sometimes interchangeable because of the availability and quality of specific granulations and grades of citrates.

Most purchasers reported that CACCS from domestic producers, subject countries, and nonsubject countries always or usually met minimum quality specifications (table II-10).

Nineteen of 25 responding purchasers reported that domestically produced product always met minimum quality specifications. Thirteen of 16 purchasers reported that the Canadian product always met minimum quality specifications, and 9 of 16 purchasers reported that Chinese product always met minimum quality specifications.

**Table II-10**  
**CACCS: Ability to meet minimum quality specifications, by source<sup>1</sup>**

<b>Factor</b>	<b>Always</b>	<b>Usually</b>	<b>Sometimes</b>	<b>Rarely or never</b>
United States	19	4	1	0
Canada	13	3	0	0
China	9	6	1	0
Belgium	10	1	0	0
Israel	9	1	0	0
Thailand	7	4	2	0
Other	8	0	0	0

<sup>1</sup> Purchasers were asked how often domestically produced or imported CACCS meets minimum quality specifications for their own or their customers' uses.

*Source:* Compiled from data submitted in response to Commission questionnaires.

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of CACCS from the United States, subject, and nonsubject countries. Most U.S. producers and importers reported that such differences were sometimes or never significant with respect to all country comparisons (table II-11). Purchasers generally reported that differences between the United States and Canada were sometimes or never significant. However, the majority of responding purchasers reported that such differences were always or frequently significant with respect to the United States compared to China (9 of 16). Factors other than price mentioned by purchasers include availability, freight, lead time, logistics, packaging, product range, quality, technical support, and transportation network.

**Table II-11****CACCS: Significance of differences other than price between CACCS produced in the United States and in other countries, by country pairs**

Country pair	U.S. producers				U.S. importers				U.S. purchasers			
	A	F	S	N	A	F	S	N	A	F	S	N
United States vs. China	0	0	0	3	2	1	8	4	6	3	3	4
United States vs. Canada	0	0	0	3	2	1	1	6	3	2	4	7
Canada vs. China	0	0	0	3	1	1	5	3	3	3	3	4
United States vs. Belgium	0	0	0	3	0	1	3	6	3	3	1	5
United States vs. Israel	0	0	0	3	0	1	3	3	3	3	1	3
United States vs. Thailand	0	0	0	3	2	1	7	3	7	2	3	2
United States vs. Other	0	0	0	3	0	2	5	4	2	1	2	4
China vs. Belgium	0	0	0	3	0	1	5	5	3	1	1	5
China vs. Israel	0	0	0	3	0	1	3	3	1	1	1	3
China vs. Thailand	0	0	0	3	1	2	4	5	5	1	4	2
China vs. Other	0	0	0	3	0	2	4	3	2	1	0	4
Canada vs. Belgium	0	0	0	3	1	1	1	6	2	1	2	5
Canada vs. Israel	0	0	0	3	0	1	2	3	1	2	1	3
Canada vs. Thailand	0	0	0	3	1	1	5	3	4	3	2	2
Canada vs. Other	0	0	0	3	0	2	3	3	1	1	1	4

Note.--A = Always, F = Frequently, S = Sometimes, N = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

## ELASTICITY ESTIMATES

This section discusses elasticity estimates. Parties were invited to comment on the estimates; such comments are included below.

### U.S. supply elasticity

The domestic supply elasticity<sup>19</sup> for CACCS measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of CACCS. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced CACCS. Analysis of these factors earlier indicates that the U.S. industry likely has the ability to somewhat increase or decrease shipments to the U.S. market; an estimate in the range of 2 to 5 is suggested.

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<sup>19</sup> A supply function is not defined in the case of a non-competitive market.

### **U.S. demand elasticity**

The U.S. demand elasticity for CACCS measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of CACCS. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of the CACCS in the production of any downstream products. Based on the available information, the aggregate demand for CACCS is likely to be inelastic; a range of -0.2 to -0.7 is suggested.

Domestic producers assert that staff's estimate is too high, and that over the review period, average unit values increased by \*\*\* percent while apparent U.S. consumption quantity declined by only \*\*\* percent, indicating a demand elasticity of \*\*\*.<sup>20</sup>

### **Substitution elasticity**

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.<sup>21</sup> Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/ discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced CACCS and imported CACCS is likely to be in the range of 2 to 6, with the Chinese product more likely to be at the lower end of this range and the Canadian product at the higher end. Domestic producers argue for a narrower range of 4 to 6 since "the world-class Chinese suppliers \*\*\* are at the top of the range with JBL Canada."<sup>22</sup>

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<sup>20</sup> Domestic producers' prehearing brief, p. 7.

<sup>21</sup> The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

<sup>22</sup> Domestic producers' prehearing brief, p. 24.





## PART III: CONDITION OF THE U.S. INDUSTRY

### OVERVIEW

The information in this section of the report was compiled from responses to the Commission's questionnaires. Three firms, which accounted for all U.S. production of CACCS during 2013, supplied information on their operations in these reviews.

#### Changes experienced by the industry

Domestic producers were asked to indicate whether their firm had experienced any plant openings, relocations, expansions, acquisitions, consolidations, closures, or prolonged shutdowns because of strikes or equipment failure; curtailment of production because of shortages of materials or other reasons, including revision of labor agreements; or any other change in the character of their operations or organization relating to the production of CACCS since 2009. All three domestic producers indicated that they had experienced such changes; their responses are presented in table III-1.

**Table III-1**  
**CACCS: Changes in the character of U.S. operations since January 1, 2009**

\* \* \* \* \*

#### Anticipated changes in operations

The Commission asked domestic producers to report anticipated changes in the character of their operations relating to the production of CACCS. Their responses appear in table III-2.

**Table III-2**  
**CACCS: Anticipated changes in the character of U.S. operations**

\* \* \* \* \*

### U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-3 presents U.S. producers' production, capacity, and capacity utilization. Total U.S. capacity remained the same from 2009 to 2011, then increased in both 2012 and 2013. U.S. capacity accounted for \*\*\* percent of apparent U.S. consumption of CACCS in 2013. U.S. production of CACCS fluctuated from 2009 to 2013, with an increase from 2010 to 2012, and decreased 3.1 percent from 2009 to 2013. Capacity utilization ranged from 79.8 percent in 2010 to 94.3 percent in 2012. None of the three U.S. producers reported that they produced other products using the same manufacturing equipment and/or production employees that were used to produce CACCS.

**Table III-3**  
**CACCS: U.S. producers' production, capacity, and capacity utilization, 2009-13, January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
Capacity	541,913	541,913	541,913	553,913	558,322	418,742	418,742
Production	497,356	432,229	476,839	522,452	481,724	364,298	370,790
	<b>Ratio (percent)</b>						
Capacity utilization	91.8	79.8	88.0	94.3	86.3	87.0	88.5

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-4 presents U.S. producers' overall capacity and production of CACCS, by type. No U.S. producer reported the ability to shift production from CACCS to other products. Citric acid made up the vast majority of CACCS produced by U.S. producers.

**Table III-4**  
**CACCS: U.S. producers' overall capacity and production of subject products, by type, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

### Constraints on capacity

All three responding U.S. producers reported constraints in the manufacturing process.

\*\*\*.

### U.S. PRODUCERS' U.S. SHIPMENTS AND EXPORTS

Table III-5 presents U.S. producers' U.S. shipments, export shipments, and total shipments. \*\*\* exported CACCS from 2009 to September 2014. Principal CACCS export markets include Canada, Europe, and Mexico.

**Table III-5**  
**CACCS: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2009-13,**  
**January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
Commercial U.S. shipments	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***	***
Subtotal, U.S. shipments	392,290	403,796	470,746	460,167	444,282	342,483	367,705
Export shipments	55,801	43,849	37,418	36,374	35,516	28,096	21,595
Total shipments	448,091	447,645	508,164	496,541	479,798	370,579	389,300
	<b>Value (1,000 dollars)</b>						
Commercial U.S. shipments	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***	***
Subtotal, U.S. shipments	327,478	324,663	366,468	360,348	343,010	267,086	256,493
Export shipments	50,322	34,295	28,793	28,977	29,976	23,761	17,446
Total shipments	377,800	358,958	395,261	389,325	372,986	290,847	273,939
	<b>Unit value (dollars per dry pound)</b>						
Commercial U.S. shipments	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***	***
Subtotal, U.S. shipments	0.83	0.80	0.78	0.78	0.77	0.78	0.70
Export shipments	0.90	0.78	0.77	0.80	0.84	0.85	0.81
Total shipments	0.84	0.80	0.78	0.78	0.78	0.78	0.70
	<b>Share of quantity (percent)</b>						
Commercial U.S. shipments	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***	***
Subtotal, U.S. shipments	***	***	***	***	***	***	***
Export shipments	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	<b>Share of value (percent)</b>						
Commercial U.S. shipments	***	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***	***
Subtotal, U.S. shipments	***	***	***	***	***	***	***
Export shipments	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Tables III-6 to III-8 present data on individual U.S. producer’s U.S. shipments, exports shipments, and total shipments by end use, product form, and product type in 2013. Table III-9 presents data aggregating all three U.S. producers’ U.S. shipments, exports shipments, and total shipments by this breakdown. Collectively, the largest share of total shipments of CACCS for all U.S. producers was for beverages (\*\*% percent), in anhydrous form (\*\*% percent), and as citric acid (\*\*% percent). Individually, two U.S. producers, \*\*, reported that the largest percentage of their total shipments of CACCS in 2013 was for soft drinks while \*\* reported that the largest percentage of its total shipments of CACCS in 2013 was for “other beverages.”

**Table III-6  
CACCS: ADM's U.S. shipments, exports shipments, and total shipments by end use, product form, and product type, 2013**

\* \* \* \* \*

**Table III-7  
CACCS: Cargill's U.S. shipments, exports shipments, and total shipments by end use, product form, and product type, 2013**

\* \* \* \* \*

**Table III-8  
CACCS: Tate & Lyle's U.S. shipments, exports shipments, and total shipments by end use, product form, and product type, 2013**

\* \* \* \* \*

**Table III-9**  
**CACCS: U.S. producers' U.S. shipments, exports shipments, and total shipments by end use, product form, and product type, 2013**

Item	Calendar year 2013					
	U.S. shipments	Export shipments	Total shipments	U.S. shipments	Export shipments	Total shipments
	Quantity (1,000 dry pounds)			Share of quantity		
	<b>Shipments by end use</b>					
U.S. producers' shipments by end use.--						
Soft drinks	***	***	***	***	***	***
Other beverages	***	***	***	***	***	***
Subtotal, beverages	***	***	***	***	***	***
Food and beverage: Foods	***	***	***	***	***	***
Subtotal, food and beverage end use	***	***	***	***	***	***
Household detergents and cleaners	***	***	***	***	***	***
Other industrial	***	***	***	***	***	***
Subtotal, industrial end use	***	***	***	***	***	***
Beauty and oral hygiene and cosmetics	***	***	***	***	***	***
Other pharmaceuticals	***	***	***	***	***	***
Subtotal, beauty and pharmaceutical end use	***	***	***	***	***	***
All other end uses	***	***	***	***	***	***
Total	444,283	35,516	479,799	***	***	***
	<b>Shipments by product form</b>					
U.S. producers' shipments by product form.--						
Anhydrous	***	***	***	***	***	***
Monohydrate	***	***	***	***	***	***
Solution	***	***	***	***	***	***
Other	***	***	***	***	***	***
Total	444,283	35,516	479,799	***	***	***
	<b>Shipments by product type</b>					
U.S. producers' shipments by product type.--						
Citric acid	***	***	***	***	***	***
Sodium citrate	***	***	***	***	***	***
Potassium citrate	***	***	***	***	***	***
Crude calcium citrate	***	***	***	***	***	***
Total	444,283	35,516	479,799	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

## U.S. PRODUCERS' INVENTORIES

Table III-10 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments.

### Table III-10

**CACCS: U.S. producers' inventories, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

## U.S. PRODUCERS' IMPORTS AND PURCHASES

\*\*\* U.S. producers, \*\*\* directly imported CACCS. Table III-11 presents data on these firms' U.S. production and U.S. imports of CACCS. \*\*\* stated that its reasons for importing CACCS were: "\*\*\*\*. \*\*\* also reported \*\*\*\*. \*\*\* stated its reason for importing CACCS was \*\*\*. \*\*\* also reported that it \*\*\*.

### Table III-11

**CACCS: U.S. producers' U.S. production, imports, and import ratios to U.S. production, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

## U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-12 shows U.S. producers' employment-related data. \*\*\* reported that it \*\*\*.

### Table III-12

**CACCS: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

# FINANCIAL EXPERIENCE OF U.S. PRODUCERS

## FINANCIAL EXPERIENCE OF U.S. PRODUCERS

### Background

Three U.S. producers, ADM, Cargill, and Tate & Lyle, reported their financial results on CACCS.<sup>1</sup> While no U.S. producer represented the majority of overall CACCS revenue, \*\*\* accounted for the largest share of total sales volume (\*\*% percent), followed by \*\*\* (\*\*% percent), and \*\*\* (\*\*% percent).

\*\*\*<sup>2</sup> \*\*\*<sup>3</sup>

### Operations on CACCS

Table III-11 presents aggregated data on U.S. producers' operations in relation to CACCS over the period examined, while table III-12 presents selected company-specific financial data.

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<sup>1</sup> All three U.S. producers reported their annual financial results on a calendar-year basis. ADM's fiscal year ends on December 31 (which changed from a fiscal year end of June 30 in 2012, resulting in a short fiscal year in 2012 of July 1, 2012 – December 31, 2012), Cargill's fiscal year ends on May 31, and Tate & Lyle's fiscal year ends on March 31.

<sup>2</sup> \*\*\*.

<sup>3</sup> \*\*\*.

**Table III-11**  
**CACCS: Results of operations of U.S. producers, 2009-13, January-September 2013 and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
Commercial sales	***	***	***	***	***	***	***
Internal consumption <sup>1</sup>	***	***	***	***	***	***	***
Transfers to related firms <sup>1</sup>	***	***	***	***	***	***	***
Total net sales	448,092	447,644	508,163	496,540	479,798	370,580	389,301
	<b>Value (\$1,000)</b>						
Commercial sales	***	***	***	***	***	***	***
Internal consumption <sup>1</sup>	***	***	***	***	***	***	***
Transfers to related firms <sup>1</sup>	***	***	***	***	***	***	***
Total net sales	377,801	358,958	395,262	389,326	372,986	290,848	273,939
Cost of goods sold.--							
Raw materials: Substrate	114,055	87,314	103,318	118,348	127,144	101,362	73,226
Raw materials: Materials other than substrate	43,292	29,278	42,228	45,703	40,769	31,896	28,335
Subtotal, raw materials	157,347	116,592	145,546	164,051	167,913	133,258	101,561
Direct labor	13,515	13,871	14,222	14,484	14,897	11,222	10,923
Other factory costs	94,973	120,961	139,452	110,418	121,409	95,024	109,735
Total COGS	265,835	251,424	299,220	288,953	304,219	239,504	222,219
Gross profit	111,966	107,534	96,042	100,373	68,767	51,344	51,720
SG&A expense	14,302	14,747	16,797	17,386	19,673	14,439	13,939
Operating income or (loss)	97,664	92,787	79,245	82,987	49,094	36,905	37,781
Other expense or (income), net	(6,865)	3,931	2,855	1,565	(202)	37	330
Net income or (loss)	104,529	88,856	76,390	81,422	49,296	36,868	37,451
Depreciation/amortization	11,165	11,585	12,895	12,820	12,512	9,358	9,263
Cash flow	115,694	100,441	89,285	94,242	61,808	46,226	46,714
	<b>Ratio to net sales (percent)</b>						
Cost of goods sold.--							
Raw materials: Substrate	30.2	24.3	26.1	30.4	34.1	34.9	26.7
Raw materials: Materials other than substrate	11.5	8.2	10.7	11.7	10.9	11.0	10.3
Subtotal, raw materials	41.6	32.5	36.8	42.1	45.0	45.8	37.1
Direct labor	3.6	3.9	3.6	3.7	4.0	3.9	4.0
Other factory costs	25.1	33.7	35.3	28.4	32.6	32.7	40.1
Total COGS	70.4	70.0	75.7	74.2	81.6	82.3	81.1
Gross profit	29.6	30.0	24.3	25.8	18.4	17.7	18.9
SG&A expense	3.8	4.1	4.2	4.5	5.3	5.0	5.1
Operating income or (loss)	25.9	25.8	20.0	21.3	13.2	12.7	13.8
Net income or (loss)	27.7	24.8	19.3	20.9	13.2	12.7	13.7

Table continued on following page.



Table III-11--Continued

CACCS: Results of operations of U.S. producers, 2009-13, January-September 2013 and January-September 2014

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Share of COGS (percent)</b>						
Share of COGS.--							
Raw materials: Substrate	42.9	34.7	34.5	41.0	41.8	42.3	33.0
Raw materials: Materials other than substrate	16.3	11.6	14.1	15.8	13.4	13.3	12.8
Subtotal, raw materials	59.2	46.4	48.6	56.8	55.2	55.6	45.7
Direct labor	5.1	5.5	4.8	5.0	4.9	4.7	4.9
Other factory costs	35.7	48.1	46.6	38.2	39.9	39.7	49.4
Total COGS	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<b>Unit value (dollars per dry pound)</b>						
Commercial sales	***	***	***	***	***	***	***
Internal consumption <sup>1</sup>	***	***	***	***	***	***	***
Transfers to related firms <sup>1</sup>	***	***	***	***	***	***	***
Total net sales	0.84	0.80	0.78	0.78	0.78	0.78	0.70
Cost of goods sold.--							
Raw materials: Substrate	0.25	0.20	0.20	0.24	0.26	0.27	0.19
Raw materials: Materials other than substrate	0.10	0.07	0.08	0.09	0.08	0.09	0.07
Subtotal, raw materials	0.35	0.26	0.29	0.33	0.35	0.36	0.26
Direct labor	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Other factory costs	0.21	0.27	0.27	0.22	0.25	0.26	0.28
Total COGS	0.59	0.56	0.59	0.58	0.63	0.65	0.57
Gross profit	0.25	0.24	0.19	0.20	0.14	0.14	0.13
SG&A expense	0.03	0.03	0.03	0.04	0.04	0.04	0.04
Operating income or (loss)	0.22	0.21	0.16	0.17	0.10	0.10	0.10
Net income or (loss)	0.23	0.20	0.15	0.16	0.10	0.10	0.10
	<b>Number of firms reporting</b>						
Operating losses	0	0	0	0	0	0	0
Data	3	3	3	3	3	3	3

<sup>1</sup> Internal consumption and transfers to related firms are discussed in the *Revenue* section of this part of the staff report.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table III-12**  
**CACCS: Results of operations of U.S. producers, by firm, 2009-2013, January-September 2013 and**  
**January-September 2014**

Item	Fiscal year					January to September	
	2009	2010	2011	2012	2013	2013	2014
<b>Net sales:</b>	<b>Quantity (1,000 dry pounds)</b>						
ADM <sup>1</sup>	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	448,092	447,644	508,163	496,540	479,798	370,580	389,301
<b>Net sales:</b>	<b>Value (\$1,000)</b>						
ADM <sup>1</sup>	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	377,801	358,958	395,262	389,326	372,986	290,848	273,939
<b>Raw material costs:</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	157,347	116,592	145,546	164,051	167,913	133,258	101,561
<b>COGS:</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	265,835	251,424	299,220	288,953	304,219	239,504	222,219
<b>Gross profit or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	111,966	107,534	96,042	100,373	68,767	51,344	51,720
<b>SG&amp;A expense:</b>							
ADM	***	***	***	***	***	***	***
Cargill <sup>2</sup>	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	14,302	14,747	16,797	17,386	19,673	14,439	13,939
<b>Operating income or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	97,664	92,787	79,245	82,987	49,094	36,905	37,781

Table continued on following page.

**Table III-12--Continued**  
**CACCS: Results of operations of U.S. producers, by firm, 2009-13, January-September 2013 and January-September 2014**

Item	Fiscal year					January to September	
	2009	2010	2011	2012	2013	2013	2014
<b>Raw material costs:</b>	<b>Ratio to net sales value (percent)</b>						
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	41.6	32.5	36.8	42.1	45.0	45.8	37.1
<b>COGS:</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	70.4	70.0	75.7	74.2	81.6	82.3	81.1
<b>Gross profit or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	29.6	30.0	24.3	25.8	18.4	17.7	18.9
<b>SG&amp;A expense:</b>							
ADM	***	***	***	***	***	***	***
Cargill <sup>2</sup>	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	3.8	4.1	4.2	4.5	5.3	5.0	5.1
<b>Operating income or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	25.9	25.8	20.0	21.3	13.2	12.7	13.8
<b>Net sales:</b>	<b>Unit value (dollars per dry pound)</b>						
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.84	0.80	0.78	0.78	0.78	0.78	0.70
<b>Raw material costs:</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.35	0.26	0.29	0.33	0.35	0.36	0.26

Table continued on following page.

Table III-12--Continued

CACCS: Results of operations of U.S. producers, by firm, 2009-13, January-September 2013 and January-September 2014

Item	Fiscal year					January to September	
	2009	2010	2011	2012	2013	2013	2014
<b>COGS:</b>	<b>Unit value (dollars per dry pound)</b>						
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.59	0.56	0.59	0.58	0.63	0.65	0.57
<b>Unit gross profit or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.25	0.24	0.19	0.20	0.14	0.14	0.13
<b>Unit SG&amp;A expense:</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.03	0.03	0.03	0.04	0.04	0.04	0.04
<b>Unit operating income or (loss):</b>							
ADM	***	***	***	***	***	***	***
Cargill	***	***	***	***	***	***	***
Tate & Lyle	***	***	***	***	***	***	***
All firms	0.22	0.21	0.16	0.17	0.10	0.10	0.10

<sup>1</sup> \*\*\*.<sup>2</sup> \*\*\*.

Source: Compiled from data submitted in response to Commission questionnaires.

## Revenue

CACCS revenue primarily reflects commercial sales. In addition to commercial sales, \*\*\* reported transfers to related firms, and \*\*\* reported internal consumption.<sup>45</sup> These transfers and internal consumption accounted for approximately \*\*\* percent and \*\*\* percent, respectively, of the industry's 2013 sales values. The unit sales values of \*\*\*<sup>6</sup> \*\*\*. The unit sales values of \*\*\*<sup>7</sup> \*\*\*.

<sup>4</sup> \*\*\*. February 9, 2015 e-mail from \*\*\*.

<sup>5</sup> These transfers to related firms are to \*\*\* foreign affiliates. Since the trade section of the U.S. producer questionnaire instructs producers to report transfers to foreign affiliates as export shipments, \*\*\* are properly classified as \*\*\* and not \*\*\* in Part III.

<sup>6</sup> \*\*\*. February 9, 2015 e-mail from \*\*\*.

<sup>7</sup> \*\*\*. February 10, 2015 e-mail from \*\*\*.

## **Volume**

Aggregate sales volume fluctuated throughout the period of review, reaching its lowest level of 447.6 million dry pounds in 2010 before climbing to its highest level of 508.2 million dry pounds in 2011. As shown in table III-12, the directional trends of company-specific sales volume were not uniform: \*\*\*,<sup>8</sup> \*\*\*, \*\*\*, while \*\*\*.

## **Value**

In aggregate, the per-pound sales values of CACCS decreased from \$0.84 in 2009 to \$0.78 in 2013. \*\*\* reported that they \*\*\*. In contrast, \*\*\*.<sup>9</sup> This likely contributed to the fact that \*\*\* net sales unit values did not follow a similar directional trend to those of \*\*\* for most of the period.

## **COGS**

Table III-11 shows that raw materials are consistently the largest component of COGS, followed by other factory costs and direct labor. Raw materials accounted for between a high of 59.2 percent of COGS in 2009 and a low of 46.4 percent of COGS in 2010. Table III-12 shows that company-specific average raw material costs were not directionally uniform. \*\*\*.<sup>10</sup> \*\*\*<sup>11</sup> and \*\*\*. As a share of total COGS, direct labor decreased and other factory costs increased during the period of review.

## **Gross profit or loss**

The gross profit of the CACCS industry decreased by 38.6 percent from 2009 to 2013. The contraction in the industry's gross profit ratio (gross profit or loss divided by total revenue) reflects declines in average sales value combined with a fluctuating average COGS which ended the period higher than it began. As shown in table III-12, \*\*\* generally reported the highest gross profit ratios, followed by \*\*\*.

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<sup>8</sup> \*\*\* February 13, 2015 e-mail from \*\*\*.

<sup>9</sup> February 9, 2015 e-mail from \*\*\*, February 9, 2015 e-mail from \*\*\*, and February 10, 2015 e-mail from \*\*\*.

<sup>10</sup> \*\*\*.

<sup>11</sup> \*\*\*. \*\*\*.

## SG&A expenses and operating income

As shown in table III-11, total SG&A expenses increased each year during the period of review, due primarily to \*\*\*.<sup>12</sup> However, in aggregate, SG&A remained between \*\*\* and \*\*\* percent of sales during the period of review.

### Variance analysis

A variance analysis for the operations of U.S. producers of CACCS is presented in table III-14.<sup>13</sup> The information for this variance analysis is derived from table III-11. The analysis illustrates that from 2009-2013, the decrease in operating income resulted from both a negative price variance (\$31.5 million; unit revenues decreased) and a negative cost/expense variance (\$23.9 million; unit costs increased), which was partially offset by a positive volume variance (\$6.9 million). During the partial year periods, there was a slight increase in operating income, which was accounted for by a negative price variance that was lower than the combined positive net cost and volume variances.

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<sup>12</sup> \*\*\*

<sup>13</sup> The Commission's variance analysis is calculated in three parts: Sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances. The overall volume component of the variance analysis is generally small.

**Table III-14**

**CACCS: Variance analysis on the operations of U.S. producers, 2009-13, January-September 2013 and January-September 2014**

Item	Between fiscal years					
	2009-2013	2009-2010	2010-2011	2011-2012	2012-2013	PY period
	<b>Value impact (\$1,000)</b>					
Net sales:						
Price variance	(31,547)	(18,465)	(12,225)	3,105	(3,213)	(31,602)
Volume variance	26,732	(378)	48,529	(9,041)	(13,127)	14,693
Net sales variance	(4,815)	(18,843)	36,304	(5,936)	(16,340)	(16,909)
Cost of sales:						
Cost/expense variance	(19,574)	14,145	(13,805)	3,423	(25,009)	29,384
Volume variance	(18,810)	266	(33,991)	6,844	9,743	(12,099)
Total cost of sales variance	(38,384)	14,411	(47,796)	10,267	(15,266)	17,285
Gross profit variance	(43,199)	(4,432)	(11,492)	4,331	(31,606)	376
SG&A expenses:						
Cost/expense variance	(4,359)	(459)	(56)	(973)	(2,873)	1,229
Volume variance	(1,012)	14	(1,994)	384	586	(729)
Total SG&A expense variance	(5,371)	(445)	(2,050)	(589)	(2,287)	500
Operating income variance	(48,570)	(4,877)	(13,542)	3,742	(33,893)	876
Summarized as:						
Price variance	(31,547)	(18,465)	(12,225)	3,105	(3,213)	(31,602)
Net cost/expense variance	(23,933)	13,686	(13,861)	2,450	(27,882)	30,614
Net volume variance	6,910	(98)	12,544	(1,813)	(2,798)	1,864

Note.—Unfavorable variances are shown in parentheses; all others are favorable. The data are comparable to changes in operating income as presented in table III-10.

Source: Compiled from data submitted in response to Commission questionnaires.

### Capital expenditures and research and development expenses

Table III-15 presents capital expenditures and research and development (“R&D”) expenses by firm. During the period of review, \*\*\* accounted for the \*\*\*. Research and development expenses were relatively low for the period examined, but had a notable increase in 2011. This was mostly accounted for by \*\*\*.<sup>14</sup>

**Table III-15**

**CACCS: Capital expenditures and research and development expenses of U.S. producers, 2009-13, January-September 2013 and January-September 2014**

\* \* \* \* \*

<sup>14</sup> \*\*\*.

## Assets and return on investment

Table III-16 presents data on the U.S. producers' total assets and the ratio of operating income to total assets. \*\*\*.

**Table III-16**  
**CACCS: U.S. producers' total assets and ratio of operating income to assets, 2009-13**

Firm	Fiscal year				
	2009	2010	2011	2012	2013
	<b>Total net assets (\$1,000)</b>				
ADM	***	***	***	***	***
Cargill	***	***	***	***	***
Tate & Lyle	***	***	***	***	***
All firms	199,106	197,325	197,391	211,923	195,092
	<b>Ratio of operating income to assets (percent)</b>				
ADM	***	***	***	***	***
Cargill	***	***	***	***	***
Tate & Lyle	***	***	***	***	***
All firms	49.1	47.0	40.1	39.2	25.2

Source: Compiled from data submitted in response to Commission questionnaires.



## PART IV: U.S. IMPORTS AND THE FOREIGN INDUSTRIES

### U.S. IMPORTS

#### Overview

The Commission issued questionnaires to 70 firms believed to have imported and/or purchased CACCS from 2009 to September 2014. Nineteen firms provided data and information in response to the questionnaires, while eight firms indicated that they had not imported CACCS since 2009.<sup>1</sup> Based on official Commerce statistics for imports of CACCS, importers' questionnaire data accounted for \*\*\* percent of total U.S. imports in 2013 and \*\*\* percent of subject imports in 2013. Firms responding to the Commission's questionnaire accounted for the following shares of individual subject country's CACCS imports (as a share of official import statistics, by quantity) in 2013:

- 100.0 percent of the CACCS imports from Canada<sup>2</sup>
- \*\*\* percent of the CACCS imports from China
- 45.2 percent of the CACCS imports from all other sources

In light of the data coverage by the Commission's questionnaires, import data in this report are based on questionnaire responses for CACCS from Canada, proprietary Customs data for CACCS from China, and official Commerce statistics for CACCS from all other sources.<sup>3</sup>

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<sup>1</sup> \*\*\* reported that they had not imported CACCS from any country since January 1, 2009.

<sup>2</sup> JBL was the only importer of CACCS from its affiliated company, Jungbunzlauer Technology GmbH & Co. ("JBL Canada") from 2010 to September 2014. \*\*\*. As a result of Commerce's administrative reviews, JBL Canada received antidumping margins of 0.55 to 2.34 percent from 2009 to 2013.

<sup>3</sup> CACCS is imported using HTS statistical reporting numbers 2918.14.0000, 2918.15.1000, and 2918.15.5000.

## Imports from subject and nonsubject countries

Tables IV-1 and IV-2 present information on U.S. imports of CACCS from Canada, China, and all other sources from 2009 to September 2014. Subject imports from Canada fluctuated from 2009 to 2013, while subject imports from China grew by \*\*\* percent from 2009 to 2013.<sup>4</sup> Imports from nonsubject sources increased by 48.0 percent, with Thailand, Israel, Belgium, Colombia, and Germany as the top five nonsubject countries. Imports of CACCS from China may be understated while imports from Thailand may be overstated due to allegations of circumvention.<sup>5</sup>

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<sup>4</sup> The increase in imports from China of CACCS from 2012 to 2013 is in large part due to the increase of exports by Chinese exporter RZBC. According to proprietary Customs data, RZBC \*\*\*. RZBC received two zero margins for its imports of CACCS in 2012 and 2014 due to Commerce's Special Administrative Reviews.

<sup>5</sup> Domestic Producers presented evidence of \*\*\*. \*\*\* Domestic interested parties' prehearing brief, pp. 65-66.

**Table IV-1**  
**CACCS: U.S. imports by source, 2009-13, January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	130,991	202,985	168,210	173,889	193,820	150,112	152,407
Total U.S. imports	***	***	***	***	***	***	***
	<b>Value (1,000 dollars)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	122,040	168,191	147,607	148,710	157,556	123,017	115,872
Total U.S. imports	***	***	***	***	***	***	***
	<b>Unit value (dollars per pound)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	0.93	0.83	0.88	0.86	0.81	0.82	0.76
Total U.S. imports	***	***	***	***	***	***	***
	<b>Share of quantity (percent)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total U.S. imports	***	***	***	***	***	***	***
	<b>Share of value (percent)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***
Total U.S. imports	***	***	***	***	***	***	***
	<b>Ratio to U.S. production (percent)</b>						
U.S. imports from.-- Canada	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***
Subject total	***	***	***	***	***	***	***
All other sources	26.3	47.0	35.3	33.3	40.2	41.2	41.1
Total U.S. imports	***	***	***	***	***	***	***

Source: Proprietary Customs data for China, questionnaire data for Canada, and official U.S. import statistics for all other sources using HTS statistical reporting numbers 2918.14.0000, 2918.15.1000, and 2918.15.5000.

**Table IV-2**  
**CACCS: U.S. imports from major nonsubject sources, by source, 2009-13, January-September 2013, and January-September 2014**

Item	Calendar year					January to September	
	2009	2010	2011	2012	2013	2013	2014
	<b>Quantity (1,000 dry pounds)</b>						
U.S. imports from.-- Thailand	27,136	23,076	11,302	52,441	83,757	63,227	57,207
Israel	44,338	47,452	43,576	31,898	30,657	25,614	22,016
Belgium	9,464	38,786	26,680	27,903	27,055	22,335	16,672
Colombia	5,299	20,007	19,008	21,875	25,286	19,074	30,437
Germany	10,447	12,082	12,524	13,509	13,396	9,712	9,529
Austria	11,414	19,994	16,784	7,782	2,954	2,413	2,901
Brazil	11,672	18,843	11,690	1,160	1,850	928	7,776
Indonesia	5,042	12,258	12,914	6,293	220	220	0
India	1,869	4,500	6,918	6,212	4,833	3,708	3,281
Taiwan	129	2,826	4,594	2,341	1,746	1,404	126
All other nonsubject sources	4,181	3,161	2,220	2,475	2,066	1,477	2,462
Subtotal, nonsubject sources	130,991	202,985	168,210	173,889	193,820	150,112	152,407
	<b>Share of total imports (percent)</b>						
U.S. imports from.-- Thailand	***	***	***	***	***	***	***
Israel	***	***	***	***	***	***	***
Belgium	***	***	***	***	***	***	***
Colombia	***	***	***	***	***	***	***
Germany	***	***	***	***	***	***	***
Austria	***	***	***	***	***	***	***
Brazil	***	***	***	***	***	***	***
Indonesia	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***
All other nonsubject sources	***	***	***	***	***	***	***
Subtotal, nonsubject sources	***	***	***	***	***	***	***

Source: Official U.S. import statistics using HTS statistical reporting numbers 2918.14.0000, 2918.15.1000, and 2918.15.5000.

### Imports from Canada by end use, form, and type

Table IV-3 presents information on U.S. shipments of imports of CACCS from Canada by end use, product form, and product type for 2013; \*\*\* percent were estimated for food and beverages (\*\* percent was for soft drinks), \*\*\* percent was for industrial end use, \*\*\* percent was for beauty and pharmaceuticals. The \*\*\* of U.S. shipments of imports from Canada were in the \*\*\* form (\*\* percent and of citric acid (\*\* percent).

**Table IV-3  
CACCS: U.S. importers' U.S. shipments, export shipments, and total shipments of imports from Canada by end use, CACCS form, and CACCS type, 2013**

\* \* \* \* \*

**Imports from China by end use, form, and type**

Table IV-4 present information on U.S. shipments of imports of CACCS from China by end use, product form, and product type for 2013; \*\*\* percent was for food and beverages (\*\* percent was food), \*\*\* percent was for industrial end use, and \*\*\* percent was for beauty and pharmaceuticals. \*\*\* of U.S. shipments of imports from China were in the \*\*\* form and the majority were citric acid (\*\* percent).

**Table IV-4  
CACCS: U.S. importers' U.S. shipments, export shipments, and total shipments of imports from China by end use, CACCS form, and CACCS type, 2013**

\* \* \* \* \*

**Imports from subject sources by end use, form, and type**

Table IV-5 presents information on U.S. shipments of imports of CACCS from Canada and China combined by end use, product form, and product type in 2013.

**Table IV-5  
CACCS: U.S. importers' U.S. shipments, export shipments, and total shipments of imports from subject sources by end use, CACCS form, and CACCS type, 2013**

\* \* \* \* \*

**Imports from nonsubject sources by end use, form, and type**

Table IV-6 present information on U.S. shipments, export shipments, and total shipments of imports of CACCS by end use, product form, and product type from all other sources in 2013. In terms of U.S. shipments of imports, \*\*\* percent was for food and beverages (\*\* percent was for soft drinks), \*\*\* percent was for industrial end use, \*\*\* percent was for beauty and pharmaceuticals, and \*\*\* percent to other end uses. Over half of U.S. shipments of imports from nonsubject sources were in the \*\*\* form (\*\* percent), \*\*\* percent were citric acid, and \*\*\* percent were sodium citrate.

**Table IV-6  
CACCS: U.S. importers' U.S. shipments, export shipments, and total shipments of imports from nonsubject sources by end use, CACCS form, and CACCS type, 2013**

\* \* \* \* \*

## Imports from all sources by end use

Table IV-7 present information on U.S. shipments of imports of CACCS by end use, product form, and product type from all sources in 2013.

### Table IV-7

**CACCS: U.S. importers' U.S. shipments, export shipments, and total shipments of imports from all sources by end use, CACCS form, and CACCS type, 2013**

\* \* \* \* \*

## U.S. IMPORTERS' IMPORTS SUBSEQUENT TO SEPTEMBER 30, 2014

The Commission requested importers to indicate whether they had imported or arranged for the importation of CACCS from Canada or China for delivery after September 30, 2014. Table IV-8 presents the amount of imports from Canada, China, and all other sources arranged by U.S. importers.

### Table IV-8

**CACCS: U.S. importers' arranged imports after September 30, 2014**

\* \* \* \* \*

## U.S. IMPORTERS' INVENTORIES

Table IV-9 presents data for inventories of U.S. imports of CACCS from Canada, China, and all other sources held in the United States. Two firms, \*\*\*, accounted for the majority of inventories from all sources in 2013. The vast majority of inventories held by U.S. importers were from nonsubject sources from 2009 to September 2014.

### Table IV-9

**CACCS: U.S. importers' end-of-period inventories of imports, by source, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

## **CUMULATION CONSIDERATIONS**

In assessing whether imports should be cumulated, the Commission determines whether U.S. imports from the subject countries compete with each other and with the domestic like CACCS and has generally considered four factors: (1) fungibility, (2) presence of sales or offers to sell in the same geographical markets, (3) common or similar channels of distribution, and (4) simultaneous presence in the market. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

### **Presence in the market**

According to official U.S. import statistics, both Canadian and Chinese CACCS entered the United States market in every month from January 2009 to September 2014.

### **Geographical markets**

Table IV-10 presents information on U.S. imports of CACCS by Customs districts and source from January 2009 to September 2014. U.S. imports from Canada entered primarily in the ports of Buffalo, New York and Detroit, Michigan. U.S. imports from China entered through many ports in the United States, but primarily through the ports of Los Angeles and San Francisco, California. Less than \*\*\* subject imports from China entered through the ports of Buffalo and Detroit, and \*\*\* subject imports from Canada through the ports of Los Angeles and San Francisco.

**Table IV-10**

**CACCS: U.S. imports, by Customs districts and source, January 2009 through September 2014**

Customs district	Imports by source (1,000 dry pounds)				
	Canada	China	Subject sources	All other sources	All sources
New York, NY	***	***	***	268,163	***
Los Angeles, CA	***	***	***	183,811	***
Chicago, IL	***	***	***	92,472	***
San Francisco, CA	***	***	***	71,273	***
Houston-Galveston, TX	***	***	***	89,070	***
Savannah, GA	***	***	***	58,794	***
San Juan, PR	***	***	***	55,141	***
Norfolk, VA	***	***	***	29,896	***
Minneapolis, MN	***	***	***	14,668	***
Charleston, SC	***	***	***	24,823	***
St. Louis, MO	***	***	***	22,478	***
New Orleans, LA	***	***	***	22,956	***
Baltimore, MD	***	***	***	23,838	***
Cleveland, OH	***	***	***	16,092	***
Seattle, WA	***	***	***	6,103	***
Dallas-Fort Worth, TX	***	***	***	4,364	***
Tampa, FL	***	***	***	9,284	***
Great Falls, MT	***	***	***	4,480	***
Detroit, MI	***	***	***	3,341	***
Columbia-Snake, OR	***	***	***	1,919	***
Mobile, AL	***	***	***	6,353	***
Buffalo, NY	***	***	***	297	***
Miami, FL	***	***	***	5,399	***
Boston, MA	***	***	***	2,029	***
Philadelphia, PA	***	***	***	1,829	***
Charlotte, NC	***	***	***	1,397	***
Laredo, TX	***	***	***	1,301	***
Honolulu, HI	***	***	***	640	***
Pembina, ND	***	***	***	57	***
Ogdensburg, NY	***	***	***	14	***
Milwaukee, WI	***	***	***	12	***
San Diego, CA	***	***	***	3	***
Anchorage, AK	***	***	***	2	***
El Paso, TX	***	***	***	2	***
Washington, DC	***	***	***	2	***
Portland, ME	***	***	***	0	***
St. Albans, VT	***	***	***	0	***
Total	***	***	***	1,022,303	***

*Table continued.*



**Table IV-10--Continued**

**CACCS: U.S. imports, by Customs districts and source, January 2009 through September 2014**

Customs district	Share of imports by source (percent)				
	Canada	China	Subject sources	All other sources	All sources
New York, NY	***	***	***	26.2	***
Los Angeles, CA	***	***	***	18.0	***
Chicago, IL	***	***	***	9.0	***
San Francisco, CA	***	***	***	7.0	***
Houston-Galveston, TX	***	***	***	8.7	***
Savannah, GA	***	***	***	5.8	***
San Juan, PR	***	***	***	5.4	***
Norfolk, VA	***	***	***	2.9	***
Minneapolis, MN	***	***	***	1.4	***
Charleston, SC	***	***	***	2.4	***
St. Louis, MO	***	***	***	2.2	***
New Orleans, LA	***	***	***	2.2	***
Baltimore, MD	***	***	***	2.3	***
Cleveland, OH	***	***	***	1.6	***
Seattle, WA	***	***	***	0.6	***
Dallas-Fort Worth, TX	***	***	***	0.4	***
Tampa, FL	***	***	***	0.9	***
Great Falls, MT	***	***	***	0.4	***
Detroit, MI	***	***	***	0.3	***
Columbia-Snake, OR	***	***	***	0.2	***
Mobile, AL	***	***	***	0.6	***
Buffalo, NY	***	***	***	0.0	***
Miami, FL	***	***	***	0.5	***
Boston, MA	***	***	***	0.2	***
Philadelphia, PA	***	***	***	0.2	***
Charlotte, NC	***	***	***	0.1	***
Laredo, TX	***	***	***	0.1	***
Honolulu, HI	***	***	***	0.1	***
Pembina, ND	***	***	***	0.0	***
Ogdensburg, NY	***	***	***	0.0	***
Milwaukee, WI	***	***	***	0.0	***
San Diego, CA	***	***	***	0.0	***
Anchorage, AK	***	***	***	0.0	***
El Paso, TX	***	***	***	0.0	***
Washington, DC	***	***	***	0.0	***
Portland, ME	***	***	***	0.0	***
St. Albans, VT	***	***	***	0.0	***
Total	***	***	***	100.0	***

Source: Proprietary Customs data for Canada (Census suppressed quantity data for JBL from official statistics) and proprietary Customs data for China, and official U.S. import statistics for all other sources using HTS statistical reporting numbers 2918.14.0000, 2918.15.1000, and 2918.15.5000.

## THE INDUSTRY IN CANADA

### Overview

JBL Canada is the sole producer of the subject products in Canada. During the original investigations JBL Canada \*\*\*. The company \*\*\* capacity \*\*\* and \*\*\*. JBL Canada exports \*\*\* its production and \*\*\* its exports are shipped to \*\*\*.<sup>6</sup>

### Operations on CACCS

Table IV-11 presents data on JBL Canada's CACCS operations. JBL Canada \*\*\*. The capacity \*\*\*. The capacity \*\*\*. JBL Canada reported that \*\*\*.<sup>7</sup> Home market sales \*\*\*.<sup>8</sup> JBL Canada reported no barriers to its exports in countries other than the United States. JBL Canada's \*\*\* percent from 2009 to 2013.<sup>9</sup>

#### Table IV-11

**CACCS: Canadian capacity, production, shipments, and inventories, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

Table IV-12 presents JBL Canada's overall capacity and production of subject products, by type. JBL Canada is unable to shift production from CACCS to other products. Citric acid made up the vast majority of subject CACCS produced by JBL Canada.

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<sup>6</sup> In their responses to the Commission's notice of institution, JBL and the domestic interested parties state that JBL Canada remains the sole producer of citric acid in Canada. JBL reported that it has begun production of trisodium citrate since imposition of the antidumping duty, but that it still only produces citric acid and certain citrate salts. The domestic interested parties assert that JBL's addition of trisodium citrate "increases its ability to export subject merchandise to the U.S. market in direct competition with the domestic industry and Chinese citric acid exporters" and that the Canadian industry has always been export oriented, with locations being chosen strategically for export reasons. *Domestic Interested Parties' Response to the Notice of Institution*, May 1, 2014, pp. 20 and 34 and *JBL's Response to the Notice of Institution*, April 30, 2014, pp. 4, 8.

<sup>7</sup> JBL Canada's major export markets apart from the United States were \*\*\*.

<sup>8</sup> JBL Canada stated that it \*\*\*.

<sup>9</sup> In 2009, JBL established its Latin American sales office in Mexico. JBL's posthearing brief, exh. 2, p. 4.

**Table IV-12**

**CACCS: JBL Canada's overall capacity and production of subject products, by type, 2009-13, January-September 2013, and January-September 2014**

\* \* \* \* \*

Table IV-13 present information on JBL Canada's export shipments of CACCS by end use, product form, and product type from all other sources in 2013. Of JBL Canada's export shipments to the United States, \*\*\* percent was for food and beverages (\*\*\* percent was for soft drinks), \*\*\* percent was for industrial end use, and \*\*\* percent was for beauty and pharmaceuticals. The vast majority of JBL Canada's export shipments of CACCS to the United States were in the \*\*\* form (\*\*\* percent), \*\*\* percent were citric acid, and \*\*\* percent were sodium citrate.

**Table IV-13**

**CACCS: JBL Canada's export shipments by end use, product form, and product type, 2013**

\* \* \* \* \*

## THE INDUSTRY IN CHINA

### Overview

The industry in China represents over two-thirds of global capacity. Four of the world's five largest producers of CACCS are Chinese and operate only in China. The majority of global capacity growth since the original investigations is located in China.<sup>10</sup> According to IHS estimates, Chinese producers exported approximately \*\*\* percent of their production in 2012. In the original investigations, data regarding the Chinese industry were based on 14 foreign producer questionnaires. The responding foreign producers estimated that they collectively accounted for approximately 90 percent of Chinese export shipments to the United States.<sup>11</sup> In the current reviews, no Chinese producer or exporter responded to the Commission's request for information.<sup>12</sup>

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<sup>10</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

<sup>11</sup> The largest five reporting Chinese producers accounted for the vast majority of reported 2008 production. These companies were \*\*\*. *Citric acid and Certain Citrate Salts from Canada and China*, Investigation Nos. 701-TA-456 and 731-TA-1151-1152 (Final), USITC Publication 4076, p. VII-3.

<sup>12</sup> In their response to the notice of institution, the domestic interested parties stated that they believe Chinese producers have significantly increased their production capacity. According to the domestic interested parties, IHS, an industry analysis firm, found that Chinese citric acid capacity \*\*\* since the original investigations from 928,300 metric tons reported in 2008 to \*\*\* in 2012. The increase in Chinese capacity from 2008 to 2012 \*\*\* and the total Chinese capacity in 2012 \*\*\*. According to IHS, Chinese capacity utilization was \*\*\* meaning that Chinese \*\*\*. Since the original investigation,

(continued...)

## Operations on CACCS

In their response to the Commission's notice of institution, domestic interested parties noted that the CACCS industry in China has undergone significant capacity expansions, \*\*\* since the original investigations according to IHS Chemical, an industry analysis firm. These capacity expansions include: (a) Shaanxi Huarong Citric Acid Chemicals Co., Ltd decided to increase its 60 thousand metric ton (MT) production line to 250 thousand metric ton; (b) RZBC (Juxian) Co., Ltd. began a project in August 2012 which is expected to increase the company's total citric acid capacity an additional 220,000-260,000 MT above its 2011 reported capacity of 100,000 MT; (c) Xianjiang Tianye Co., Ltd. in the first half of 2013 completed a 200 thousand MT renovation project; (d) construction of a 140 thousand MT citric acid bio-transfer technology application project was scheduled for completion in June 2013 by RZBC Co., Ltd.; (e) Jiangsu Gadot Nuobei Biochemical Co., Ltd. began construction in 2011 to add 100 thousand MT to capacity; and (f) Inner Mongolia Yuwang Bio-tech Co., Ltd. plans to begin construction in 2014 to add 100 thousand MT to production; (g) Yunnan Dianneng Luliang Xielian Company, between 2012 and 2014, is building a 100 thousand MT citric acid line; (h) Fufeng Group is building in Inner Mongolia a citric acid project with a 100 thousand MT capacity; (i) expected to enter full production in 2014, Jiangsu Nuobei Wanxin Industrial Co, Ltd. signed a citric acid and deep processing project investment expected to have a capacity of 100 thousand MT; (j) the domestic interested parties describe seven additional expansions of capacity since the point of investigation on smaller scales.<sup>13</sup>

## ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

Antidumping duty orders covering imports of citric acid from China are in place in Brazil,<sup>14</sup> the EU,<sup>15</sup> India,<sup>16</sup> Russia,<sup>17</sup> Thailand,<sup>18</sup> and Ukraine.<sup>19</sup> Colombia is currently conducting an antidumping investigation against citric acid from China, filed in June 2014. The Eurasian

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(...continued)

according to domestic interested parties, all major Chinese producers of citric acid have either expanded capacity or announced plans to expand capacity by the end of 2015. The domestic interested parties link sixteen Chinese producers of citric acid to publicly available information on new investments in capacity. In addition to this, \*\*\* as reported by the domestic interested parties. *Domestic Interested Parties' Response to the Notice of Institution*, May 1, 2014, p. 20-25.

<sup>13</sup> *Domestic Interested Parties' Response to the Notice of Institution*, May 1, 2014, p. 20-25.

<sup>14</sup> Brazil issued antidumping duty measures on CACCS from China in July 2012.

<sup>15</sup> The EU issued antidumping duties against citric acid from China in December 2008 and continued the application of its order as a result of an expiry review that was completed in January 2015.

<sup>16</sup> India issued a global safeguard measure on imports of sodium citrate in September 2014, and it is currently conducting an antidumping investigation against sodium citrate from China.

<sup>17</sup> Russia issued antidumping duty measures on the CACCS from China in 2014.

<sup>18</sup> Thailand issued antidumping duty measures on the CACCS from China in January 2012, which will continue for five years.

<sup>19</sup> Ukraine issued antidumping duty on several Chinese producers in April 2013.

Economic Union (which currently includes Russia, Kazakhstan, Belarus, and Armenia, and also will include Kyrgyzstan as of May 9, 2015) is conducting an antidumping investigation against citric acid from China, and its investigating authority has recommended the imposition of antidumping duties.

## **GLOBAL MARKET**

Citric acid production spans the globe but is concentrated in China, North America, and Western Europe.<sup>20</sup> The industry is fairly mature in the developed economies, so most of the growth in production and consumption is in less developed economies. Table IV-14 presents data on global exports of CACCS for 2009-13.

### **Production capacity**

Most growth in production capacity has been in less developed economies. In particular, Thailand is the only country other than China to have significantly increased its capacity and production since the original investigations. Approximately three quarters of Thai production is exported.<sup>21</sup>

### **Consumption**

According to IHS, global consumption of citric acid grew between 2011 and 2012 and is projected to grow \*\*\* percent annually through 2018.<sup>22</sup> Like production, most of this consumption growth is concentrated in China. Chinese consumption of citric acid is projected to increase \*\*\* percent annually from 2012 to 2018.<sup>23</sup>

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<sup>20</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

<sup>21</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 93.

<sup>22</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

<sup>23</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

**Table IV-14**  
**CACCS: Global exports, 2009-13**

Reporter	Calendar year				
	2009	2010	2011	2012	2013
	<b>Quantity (1,000 dry pounds)</b>				
Canada (see note)	143	4,504	2,952	8,763	6,127
China	1,679,080	1,876,469	1,789,093	1,932,275	1,970,549
Subject exporters	1,679,224	1,880,973	1,792,045	1,941,038	1,976,676
Other top exporting countries:					
Germany	124,442	141,687	121,336	132,956	142,835
Thailand	30,316	15,360	32,490	87,885	125,489
United States	79,155	71,882	71,331	72,391	71,498
Colombia	47,798	65,173	57,918	60,471	61,505
Netherlands	73,350	82,479	78,447	64,069	61,494
Belgium	39,229	49,496	46,524	46,074	44,538
Brazil	76,278	84,829	65,532	45,587	32,401
Ireland	29,511	30,424	27,573	30,926	29,403
Singapore	4,616	4,242	3,325	4,775	16,607
Malaysia	3,534	4,947	5,024	5,977	16,025
Poland	9,509	5,340	4,017	3,953	10,794
Slovenia	11,230	14,394	11,497	27,150	9,473
Spain	3,862	4,411	4,863	5,648	9,184
India	4,982	6,389	9,162	9,550	8,929
All other reporting countries	48,929	61,648	68,030	65,607	57,285
All reporting countries	2,265,966	2,523,673	2,399,114	2,604,058	2,674,137
	<b>Value (\$1,000)</b>				
Canada (see note)	1,713	3,082	3,102	7,895	4,888
China	631,865	802,790	916,076	889,257	840,813
Subject exporters	633,578	805,872	919,178	897,152	845,702
Other top exporting countries:					
Germany	125,578	139,032	142,550	150,676	166,447
Thailand	22,411	10,654	20,161	54,829	73,572
United States	87,336	82,514	86,745	88,481	88,452
Colombia	35,629	47,283	46,853	50,188	49,066
Netherlands	51,398	49,603	51,095	43,575	45,021
Belgium	32,722	36,767	39,621	37,989	39,817
Brazil	55,997	62,198	55,076	40,807	28,139
Ireland	39,712	45,068	41,534	43,211	46,300
Singapore	10,890	12,220	12,171	13,615	19,630
Malaysia	1,644	2,792	3,515	3,217	7,316
Poland	5,786	3,264	3,159	3,033	8,580
Slovenia	7,071	8,938	8,135	17,444	6,285
Spain	6,387	8,753	9,674	10,681	11,887
India	4,844	5,605	7,101	7,771	8,138
All other reporting countries	56,736	66,379	116,490	99,573	74,725
All reporting countries	1,177,719	1,386,942	1,563,058	1,562,241	1,519,075

*Table continued.*

Table IV-14--Continued

## CACCS: Global exports, 2009-13

Reporter	Calendar year				
	2009	2010	2011	2012	2013
	<b>Unit value (dollars per dry pound)</b>				
Canada (see note)	11.95	0.68	1.05	0.90	0.80
China	0.38	0.43	0.51	0.46	0.43
Subject exporters	0.38	0.43	0.51	0.46	0.43
Other top exporting countries:					
Germany	1.01	0.98	1.17	1.13	1.17
Thailand	0.74	0.69	0.62	0.62	0.59
United States	1.10	1.15	1.22	1.22	1.24
Colombia	0.75	0.73	0.81	0.83	0.80
Netherlands	0.70	0.60	0.65	0.68	0.73
Belgium	0.83	0.74	0.85	0.82	0.89
Brazil	0.73	0.73	0.84	0.90	0.87
Ireland	1.35	1.48	1.51	1.40	1.57
Singapore	2.36	2.88	3.66	2.85	1.18
Malaysia	0.47	0.56	0.70	0.54	0.46
Poland	0.61	0.61	0.79	0.77	0.79
Slovenia	0.63	0.62	0.71	0.64	0.66
Spain	1.65	1.98	1.99	1.89	1.29
India	0.97	0.88	0.77	0.81	0.91
All other reporting countries	1.16	1.08	1.71	1.52	1.30
All reporting countries	0.52	0.55	0.65	0.60	0.57
	<b>Share of quantity (percent)</b>				
Canada (see note)	0.0	0.2	0.1	0.3	0.2
China	74.1	74.4	74.6	74.2	73.7
Subject exporters	74.1	74.5	74.7	74.5	73.9
Other top exporting countries:					
Germany	5.5	5.6	5.1	5.1	5.3
Thailand	1.3	0.6	1.4	3.4	4.7
United States	3.5	2.8	3.0	2.8	2.7
Colombia	2.1	2.6	2.4	2.3	2.3
Netherlands	3.2	3.3	3.3	2.5	2.3
Belgium	1.7	2.0	1.9	1.8	1.7
Brazil	3.4	3.4	2.7	1.8	1.2
Ireland	1.3	1.2	1.1	1.2	1.1
Singapore	0.2	0.2	0.1	0.2	0.6
Malaysia	0.2	0.2	0.2	0.2	0.6
Poland	0.4	0.2	0.2	0.2	0.4
Slovenia	0.5	0.6	0.5	1.0	0.4
Spain	0.2	0.2	0.2	0.2	0.3
India	0.2	0.3	0.4	0.4	0.3
All other reporting countries	2.2	2.4	2.8	2.5	2.1
All reporting countries	100.0	100.0	100.0	100.0	100.0

Note.--US Census bureau suppresses data from public U.S. import statistics relating to JBL's exports to the United States under the primary HTS subheading for citric acid (2918.14) due to confidentiality concerns. It is likely that Canadian export data are also suppressed for confidentiality concerns by Canada's statistical authority. \*\*\* foreign producer questionnaire response provides a better indication of the quantities of citric acid exported from Canada.

Source: GTIS Global Trade Atlas HTS subheadings 2918.14 and 2918.15.

## Prices

Most responding firms did not have knowledge of prices in other markets. U.S. producer \*\*\* and \*\*\* reported that CACCS prices in the U.S. market were higher than prices in other markets. U.S. producer \*\*\* reported that since the orders were imposed, U.S. prices have been higher than prices in other markets. \*\*\*. Purchaser \*\*\* reported that U.S. and Canadian citric acid prices are up 10 percent recently due to logistics (despite a decrease in corn prices), and that prices in Europe are up by about 7 percent.<sup>24</sup>

## Foreign demand

Most firms reported that CACCS demand outside of the United States has increased or not changed since January 1, 2009, and most anticipated that these trends would continue (table IV-15). Only a few firms provided explanations. Reasons cited for demand growth outside the United States include increased product offerings containing citric acid, population growth, and increased demand for consumer goods.

World consumption of citric acid grew at an annual average rate of \*\*\* percent from 2009 to 2012.<sup>25</sup> The largest markets for citric acid are North America (\*\*\* percent of 2012 world consumption, with the United States at \*\*\* percent), Western Europe (\*\*\* percent), China (\*\*\* percent), and Asia (excluding China and Japan, \*\*\* percent).<sup>26</sup>

**Table IV-15**

**CACCS: Firms' responses regarding demand outside of the United States**

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand outside the United States:				
U.S. producers	0	0	0	1
Importers	4	5	0	5
Purchasers	6	8	0	4
Foreign producers -- home market	1	0	0	0
Foreign producers -- other markets	1	0	0	0
Anticipated demand outside the United States:				
U.S. producers	0	0	0	1
Importers	3	5	0	6
Purchasers	4	8	0	6
Foreign producers -- home market	1	0	0	0
Foreign producers -- other markets	1	0	0	0

Source: Compiled from data submitted in response to Commission questionnaires.

<sup>24</sup> It reported that Europe has minimum import prices and that importers generally follow the lead of local producers.

<sup>25</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

<sup>26</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.



China is the fastest growing market in the world, with a projected annual growth rate from 2012-18 of \*\*\* percent. Projected annual growth rates for other regions are as follows: North America, \*\*\* percent, Central and South America \*\*\* percent, Western Europe, \*\*\* percent, Asia (excluding China and Japan), \*\*\* percent.<sup>27</sup> Demand growth is projected to be higher in food and beverages than in other end use markets.<sup>28</sup>

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<sup>27</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 6.

<sup>28</sup> IHS, *Chemical Economics Handbook*, February 2013, p. 7.



## PART V: PRICING DATA

### FACTORS AFFECTING PRICES

#### Raw material costs

U.S. producers' aggregate per-unit raw material costs decreased by 25.8 percent from 2009 to 2010, from \$0.35 per pound to \$0.26 per pound, then increased in each subsequent year of the review period, returning to \$0.35 per pound in 2013. Raw material costs (per unit) declined by 27.5 percent between January-September 2013 and January-September 2014.

Corn is the principal raw material used for producing CACCS in the United States.<sup>1</sup> U.S. corn prices doubled during 2010 and 2011, remained at these higher levels through early 2013, and then declined in 2013 and 2014 to near 2009 levels (figure V-1). Some long-term contracts for CACCS may include price adjustments based on corn prices.<sup>2</sup>

U.S. producers \*\*\* reported that CACCS prices do not always track corn prices. \*\*\* reported that CACCS prices have fallen since 2009 despite corn prices peaking in 2013. It also reported that other input costs, including for molasses, chemicals, and energy, have increased. \*\*\* reported that the level of Chinese imports in the U.S. market has been a more important factor than corn prices. For example, it reported that from 2009 to 2010 its prices fell from \*\*\* per ton to \*\*\* per ton while corn prices increased from \*\*\* per ton to \*\*\* per ton.

#### Transportation costs to the U.S. market

Transportation costs for CACCS shipped from subject countries to the United States averaged 0.8 percent for Canada and 10.6 percent for China in 2014. These estimates were derived from official import data and represent the transportation and other charges on imports.<sup>3</sup> Eight importers reported that the exporter typically arranges international transportation; eight reported that the importer arranges transportation; and two reported that both the importer and exporter arrange transportation. \*\*\*. Two importers reported the cost of shipping CACCS from China to the United States: \*\*\*. \*\*\*.<sup>4</sup>

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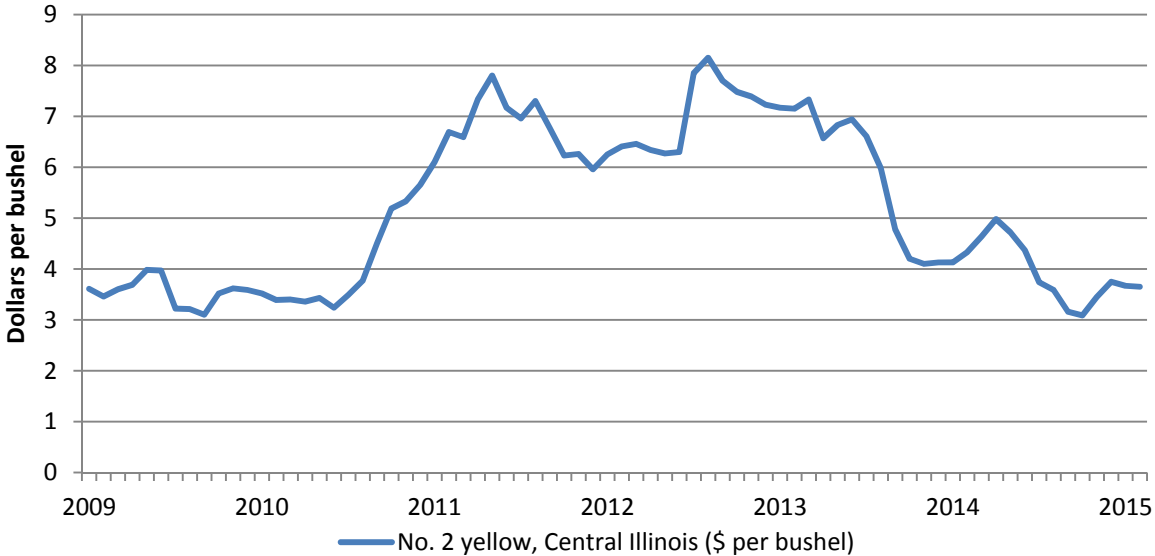
<sup>1</sup> The Canadian producer also uses corn as a substrate. Chinese producers use corn and cassava as a substrate and European production uses corn and beets. IHS, *Chemical Economics Handbook*, February 2013, p. 13.

<sup>2</sup> In U.S. producer questionnaire responses, \*\*\*. In their posthearing brief, domestic producers reported that \*\*\*. Domestic producers' posthearing brief, Answers to Questions from the Commission, p. 8.

<sup>3</sup> The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2014 and then dividing by the customs value based on the HTS subheadings 2918.14.0000, 2918.15.1000, and 2918.15.5000.

<sup>4</sup> Based on 2013 annual average exchange rate, <http://www.federalreserve.gov/releases/G5a/current/default.htm>, retrieved Feb. 24, 2015.

**Figure V-1**  
**U.S. corn prices: Monthly price of No. 2 yellow corn in Central Illinois, January 2009-February 2015**



Source: United States Department of Agriculture, Economic Research Service, <http://www.ers.usda.gov/data-products/feed-grains-database/feed-grains-custom-query.aspx#ResultsPanel>, retrieved April 6, 2015.

### **U.S. inland transportation costs**

Two of the three U.S. producers and most responding importers (8 of 11) reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs ranged from 4 to 7 percent while importers reported costs of 2 to 6 percent. The majority of U.S. producers' CACCS is shipped to customers by truck.<sup>5</sup>

## **PRICING PRACTICES**

### **Pricing methods**

U.S. producers and importers of Canadian and Chinese product reported using transaction-by-transaction negotiations and contracts (table V-1). In addition, importers \*\*\* also reported using set price lists.

U.S. producers sell CACCS primarily on a contract basis while importers of subject product sell mainly on a spot basis (table V-2). Among U.S. producers, \*\*\*.

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<sup>5</sup> Hearing transcript, pp. 129-130 (Hurt, O'Dwyer, and Kotula).

**Table V-1****CACCS: U.S. producers and importers reported price setting methods, by number of responding firms<sup>1</sup>**

Method	U.S. producers	U.S. importers
Transaction-by-transaction	3	17
Contract	3	10
Set price list	0	4
Other	0	1

<sup>1</sup> The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table V-2****CACCS: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2013**

Type of sale	Share of commercial U.S. shipments (percent)		
	U.S. producers	U.S. importers	
		Canada	China
Long-term contracts	33.3	***	0.0
Annual contract	64.0	***	0.0
Short-term contracts	0.4	***	0.0
Spot sales	2.3	***	100.0

Note.--Because of rounding, figures may not add to the totals shown.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producers' contracts generally do not allow for price renegotiation during the contract term and do not contain meet-or-release provisions.<sup>6</sup> \*\*\*. \*\*\*.

Importer \*\*\*. Importers of Chinese product reported only spot sales.

All 25 responding purchasers reported that their purchases usually involve negotiations with the supplier. Negotiations include availability, delivery time, delivery terms, length of contract, lead time, minimum quantity requirements, packaging, price, quality, service, supplier reliability, and terms. Several purchasers specifically noted that they do not quote competing prices to suppliers, although \*\*\* reported that it may supply ranges of competing prices and whether the supplier was competitive. \*\*\*.

Most responding purchasers reported that the presence of sellers of product from all sources (domestic, Canadian, Chinese, and nonsubject) reduced prices in their contract

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<sup>6</sup> U.S. producers report that they sometimes end up renegotiating prices with customers even if a contract does not contain a legal clause requiring price renegotiation. Hearing transcript, pp. 96-97 (Hurt). U.S. producers report that despite annual contracts with distributors, if spot prices fall, distributors will stop purchasing from U.S. producers or request discounts so that the distributor can meet spot prices offered by their competitors. Domestic producers' posthearing brief, Answers to Questions from the Commission, p. 5 and pp. 64-65.

negotiations. Purchasers were asked from which sources they obtain pricing information for contract negotiations: 23 purchasers reported U.S. producers, 14 reported importers of Canadian product, 12 reported importers of Chinese product, and 14 reported importers of nonsubject product. Half (12 of 24) of responding purchasers reported using prices from other suppliers to get lower price bids; specifically 12 indicated U.S. producers, 6 importers from Canada, 5 importers from China, and 7 importers from nonsubject countries. Regarding spot purchases, 14 purchasers indicated receiving price bids from domestic producers, 11 from Canada, 7 from China, and 10 from nonsubject countries.

Most purchasers (21 of 26) do not purchase CACCS bundled with other products.<sup>7</sup> Three purchasers reported that they purchase product daily, 9 purchase weekly, 6 purchase monthly, and 4 purchase annually. All but two of the 25 responding purchasers reported that they did not expect their purchasing patterns to change in the next two years. Most purchasers contact 1 to 5 suppliers before making a purchase.

### **Sales terms and discounts**

U.S. producers typically quote prices on an f.o.b. basis while most importers (12 of 18 \*\*\*) typically quote prices on a delivered basis. U.S. producers generally do not offer discounts, \*\*\*. \*\*\*. Most importers (16 of 19) also do not offer discounts \*\*\*. Two U.S. producers reported sales terms of net 30 days and one reported net 60 days. Most importers reported sales terms of net 30 days. \*\*\*.

### **Price leadership**

Ten purchasers listed at least one price leader. Seven purchasers listed Cargill, four listed ADM, and three listed Tate & Lyle. One firm each listed Chemsol, JBL, RZBC, Thai producers, and Zhong Ya. Reasons for listing these firms included first to increase price (ADM and Cargill), large players (ADM, Cargill, JBL, and Tate & Lyle), attempted to buy market share (Thai producers/RZBC), and “keep market up and fair” (Chemsol and Zhong Ya).

### **PRICE DATA**

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and delivered value of the following CACCS products shipped to unrelated U.S. customers during January 2009-September 2014.

**Product 1a.**—Citric acid, granular, in dry form in 25 kilogram and 50 pound bags, spot sales.

**Product 1b.**—Citric acid, granular, in dry form in 25 kilogram and 50 pound bags, contract sales.

**Product 2a.**—Citric acid, fine granular, in dry form in 25 kilogram and 50 pound bags, spot sales.

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<sup>7</sup> A few firms reported purchasing other products including high fructose corn syrup, ethanol, and sucralose.

**Product 2b.**—Citric acid, fine granular, in dry form in 25 kilogram and 50 pound bags, contract sales.

**Product 3a.**—Citric acid, granular, in dry form packed in bulk sacks (“supersacks”), spot sales.

**Product 3b.**—Citric acid, granular, in dry form packed in bulk sacks (“supersacks”), contract sales.

**Product 4.**—Sodium citrate, granular, in dry form in 25 kilogram and 50 pound bags.

All three U.S. producers, six importers of Chinese product, and two importers of Canadian product provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.<sup>8</sup> Pricing data reported by these firms accounted for approximately 45.4 percent of U.S. producers’ commercial shipments of CACCS and \*\*\* percent of U.S. commercial shipments of subject imports from Canada during the review period. As noted earlier, importer questionnaire responses accounted for only \*\*\* percent of imports from China. Pricing data accounted for 95.2 percent of U.S. commercial shipments of subject imports from China reported by firms responding to the importer questionnaire.

Price data for products 1-4 are presented in tables V-3 to V-9 and figure V-2.

**Table V-3**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 1a and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Table V-4**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 1b and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Table V-5**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 2a and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

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<sup>8</sup>Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

**Table V-6**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 2b and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Table V-7**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 3a and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Table V-8**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 3b and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Table V-9**

**CACCS: Weighted-average delivered prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarters, January 2009-September 2014**

\* \* \* \* \*

**Figure V-2**

**CACCS: Weighted-average prices and quantities of domestic and imported products 1-4, by quarters, January 2009-September 2014**

\* \* \* \* \*

### **Price trends**

Prices generally decreased during January 2009-September 2014. Table V-10 summarizes the price trends, by country and by product. As shown in the table, during this review period, domestic price decreases ranged from 13.1 percent to 30.9 percent while import price decreases ranged from 7.5 percent to 39.0 percent for product from Canada, and from 11.9 percent to 28.6 percent for product from China.

### **Price comparisons**

As shown in table V-11, prices for CACCS imported from Canada were below those for U.S.-produced product in 54 of 143 instances; margins of underselling ranged from 0.04 to 50.2 percent. In the remaining 89 instances, prices for CACCS from Canada were between 0.04 to 90.5 percent above prices for the domestic product. Prices for CACCS imported from China were below those for U.S.-produced product in 16 of 94 instances; margins of underselling ranged from 1.1 to 53.4 percent. In the remaining 78 instances, prices for CACCS from China were between 0.3 and 80.4 percent above prices for the domestic product.



**Table V-10**

**CACCS: Summary of weighted-average delivered prices for products 1a-3b and 4 from the United States, China, and Canada**

Item	Number of quarters	Low price (per pound)	High price (per pound)	Change in price (percent) <sup>1</sup>
<b>Product 1a:</b>				
United States	23	***	***	(17.5)
Canada	23	***	***	(31.0)
China	23	***	***	(16.4)
<b>Product 1b:</b>				
United States	23	***	***	(18.5)
Canada	23	***	***	(36.9)
China	11	***	***	---
<b>Product 2a:</b>				
United States	23	***	***	(20.4)
Canada	23	***	***	(31.0)
China	23	***	***	(11.9)
<b>Product 2b:</b>				
United States	23	***	***	(17.3)
Canada	23	***	***	(31.4)
China	11	***	***	---
<b>Product 3a:</b>				
United States	20	***	***	---
Canada	20	***	***	(7.5)
China	17	***	***	(28.6)
<b>Product 3b:</b>				
United States	23	***	***	(13.1)
Canada	23	***	***	(39.0)
China	0	***	***	---
<b>Product 4:</b>				
United States	23	***	***	(30.9)
Canada	11	***	***	---
China	11	***	***	---

<sup>1</sup> Percentage change from first quarter 2009 to third quarter 2014.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table V-11**  
**CACCS: Instances of underselling/overselling and the range and average of margins, by country,**  
**January 2009-September 2014<sup>1</sup>**

Source	Underselling				
	Number of quarters	Quantity (1,000 dry pounds)	Average margin (percent)	Margin Range (percent)	
				Min.	Max
Canada	54	***	5.5	0.04	50.2
China	16	***	8.6	1.1	53.4
Total	70	***	6.2	0.04	53.4
Source	(Overselling)				
	Number of quarters	Quantity (1,000 dry pounds)	Average margin (percent)	Margin Range (percent)	
				Min.	Max
Canada	89	***	(9.1)	(0.04)	(90.5)
China	78	***	(16.7)	(0.3)	(80.4)
Total	167	***	(12.7)	(0.04)	(90.5)

<sup>1</sup>In the original investigations, subject imports from Canada were priced lower than domestic product in 71 of 112 comparisons, with underselling margins ranging from 0.0 to 29.5 percent and subject imports from China were priced lower than domestic product in 68 of 119 comparisons, with underselling margins ranging from 0.4 to 31.7 percent. *Citric Acid and Certain Citrate Salts from Canada and China, Inv. Nos. 701-TA-456 and 731-TA-1151-1152 (Final)*, USITC Publication 4076, May 2009, table V-10.

Source: Compiled from data submitted in response to Commission questionnaires.

### **Purchasers' perceptions of relative price trends**

Purchasers were asked how the prices of CACCS from the United States had changed relative to the prices of product from Canada and China since 2009. Most responding purchasers reported that prices of domestic product, and product imported from Canada and China had changed by the same amount. Firms that reported that relative prices had changed generally reported that prices of domestic product had increased relative to prices of Canadian and Chinese product.

**APPENDIX A**

***FEDERAL REGISTER NOTICES***



The Commission makes available notices relevant to its investigations and reviews on its website, [www.usitc.gov](http://www.usitc.gov). In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

<b>Citation</b>	<b>Title</b>	<b>Link</b>
79 FR 18279 April 1, 2014	<i>Initiation of Five-Year (“Sunset”) Review</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-04-01/pdf/2014-07269.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-04-01/pdf/2014-07269.pdf</a>
79 FR 18311 April 1, 2014	<i>Citric Acid and Certain Citrate Salts from Canada and China; Institution of Five-Year Reviews</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-04-01/pdf/2014-07207.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-04-01/pdf/2014-07207.pdf</a>
79 FR 68299, November 14, 2014	<i>Citric Acid and Certain Citrate Salts From Canada and China; Scheduling of Full Five-Year Reviews</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-11-14/pdf/2014-26972.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-11-14/pdf/2014-26972.pdf</a>
79 FR 45761 August 6, 2014	<i>Citric Acid and Certain Citrate Salts From the People’s Republic of China: Final Results of Expedited Sunset Review of the Countervailing Duty Order</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18594.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18594.pdf</a>
79 FR 45763 August 6, 2014	<i>Citric Acid and Certain Citrate Salts From Canada and the People’s Republic of China: Final Results of Expedited First Sunset Reviews of the Antidumping Duty Orders</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18588.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-08-06/pdf/2014-18588.pdf</a>
79 FR 68299 November 5, 2014	<i>Citric Acid and Certain Citrate Salts From Canada and China; Scheduling of Full Five-Year Reviews</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2014-11-14/pdf/2014-26972.pdf">http://www.gpo.gov/fdsys/pkg/FR-2014-11-14/pdf/2014-26972.pdf</a>
80 FR 5788 February 3, 2015	<i>Citric Acid and Certain Citrate Salts From Canada and China; Revised Schedule for Full Five-Year Reviews</i>	<a href="http://www.gpo.gov/fdsys/pkg/FR-2015-02-03/pdf/2015-02077.pdf">http://www.gpo.gov/fdsys/pkg/FR-2015-02-03/pdf/2015-02077.pdf</a>
<p>Note.—The press release announcing the Commission’s determinations concerning adequacy and the conduct of a full or expedited review can be found at <a href="http://www.usitc.gov/press_room/news_release/2014/er0707mm1.htm">http://www.usitc.gov/press_room/news_release/2014/er0707mm1.htm</a>. A summary of the Commission’s votes concerning adequacy and the conduct of a full or expedited review can be found at <a href="http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11673">http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11673</a>. The Commission’s explanation of its determinations can be found at <a href="http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11679">http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11679</a>.</p>		



**APPENDIX B**  
**HEARING WITNESSES**





## CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

**Subject:** Citric Acid and Certain Citrate Salts from Canada and China

**Inv. Nos.:** 701-TA-456 and 731-TA-1151-1152 (Review)

**Date and Time:** March 26, 2015 - 9:30 a.m.

Session were held in connection with these investigations in the Main Hearing Room (room 101), 500 E Street, SW, Washington, DC.

### **OPENING REMARKS:**

In Support of Continuation of Orders (**Joseph W. Dorn**, King & Spalding LLP)  
In Opposition of Continuation of Orders (**Frederick P. Waite**, Vorys, Sater,  
Seymour and Pease LLP)

### **In Support of the Continuation of the Antidumping and Countervailing Duty Orders:**

King & Spalding LLP  
Washington, DC  
on behalf of

Archer Daniels Midland Company  
Cargill, Incorporated  
Tate & Lyle Ingredients Americas LLC

**Christopher M. Cuddy**, President, Corn, Archer Daniels  
Midland Company

**Eric S. Warner, Jr.**, Plant Manager, Archer Daniels Midland  
Company

**In Support of the Continuation of  
the Antidumping and Countervailing Duty Orders (continued):**

**Corey Kotula**, Product Manager, Acidulants, Archer Daniels  
Midland Company

**Christopher Aud**, Assistant Vice President, Acidulants Product  
Line Manager, Cargill Incorporated

**John O’Dwyer**, Citric Acid Sales Manager, Cargill Incorporated

**L. Martin Hurt**, Director, Global Acidulant Sales Bulk  
Ingredients, Tate & Lyle Ingredients Americas LLC

**Carl Vineyard**, Staff Representative, United Steelworkers, (“USW”)

**Charles Anderson**, Principal, Capital Trade, Inc.

**Joseph W. Dorn** )  
 ) – OF COUNSEL  
**Stephen A. Jones** )

**In Opposition of the Continuation of  
the Antidumping and Countervailing Duty Orders:**

Vorys, Sater, Seymour and Pease LLP  
Washington, DC  
on behalf of

Jungbunzlauer Canada Inc. (“JBL”)

**Sharon Grant**, Vice President, Finance and Administration, JBL

**Daniel Rainville**, President, Jungbunzlauer, Inc.

**Michael T. Kerwin**, Director, Georgetown Economic Services, LLC

**William B. Hudgens**, Senior Economist, Georgetown Economic  
Services, LLC

**Frederick P. Waite** )  
**Kimberly R. Young** ) – OF COUNSEL  
**William M. R. Barrett** )

**REBUTTAL/CLOSING REMARKS:**

In Support of Continuation of Orders (**Stephen A. Jones**, King & Spalding LLP)

In Opposition of Continuation of Orders (**Frederick P. Waite**, Vorys, Sater,  
Seymour and Pease LLP)



**APPENDIX C**  
**SUMMARY DATA**



Table C-1

## CACCS: Summary data concerning the U.S. market, 2009-13, January-September 2013, and January-September 2014

(Quantity=1,000 dry pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data						
	2009	2010	Calendar year 2011	2012	2013	January to September 2013	2014
U.S. consumption quantity:							
Amount.....	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***
Importers' share (fn1):							
Canada.....	***	***	***	***	***	***	***
China.....	***	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***	***
All others sources.....	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***
U.S. consumption value:							
Amount.....	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***
Importers' share (fn1):							
Canada.....	***	***	***	***	***	***	***
China.....	***	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***	***
All others sources.....	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***
U.S. imports from:							
Canada:							
Quantity.....	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***
China:							
Quantity.....	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***
Subject sources:							
Quantity.....	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***
All other sources:							
Quantity.....	130,991	202,985	168,210	173,889	193,820	150,112	152,407
Value.....	122,040	168,191	147,607	148,710	157,556	123,017	115,872
Unit value.....	\$0.93	\$0.83	\$0.88	\$0.86	\$0.81	\$0.82	\$0.76
Ending inventory quantity.....	14,261	11,947	10,316	10,687	11,993	14,396	19,722
Total imports:							
Quantity.....	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***
U.S. producers':							
Average capacity quantity.....	541,913	541,913	541,913	553,913	558,322	418,742	418,742
Production quantity.....	497,356	432,229	476,839	522,452	481,724	364,298	370,790
Capacity utilization (fn1).....	91.8	79.8	88.0	94.3	86.3	87.0	88.5
U.S. shipments:							
Quantity.....	392,290	403,796	470,746	460,167	444,282	342,483	367,705
Value.....	327,478	324,663	366,468	360,348	343,010	267,086	256,493
Unit value.....	\$0.83	\$0.80	\$0.78	\$0.78	\$0.77	\$0.78	\$0.70
Export shipments:							
Quantity.....	55,801	43,849	37,418	36,374	35,516	28,096	21,595
Value.....	50,322	34,295	28,793	28,977	29,976	23,761	17,446
Unit value.....	\$0.90	\$0.78	\$0.77	\$0.80	\$0.84	\$0.85	\$0.81
Ending inventory quantity.....	***	***	***	***	***	***	***
Inventories/total shipments (fn1).....	***	***	***	***	***	***	***
Production workers.....	***	***	***	***	***	***	***
Hours worked (1,000s).....	***	***	***	***	***	***	***
Wages paid (\$1,000).....	***	***	***	***	***	***	***
Hourly wages.....	***	***	***	***	***	***	***
Productivity (dry pounds per hour).....	***	***	***	***	***	***	***
Unit labor costs.....	***	***	***	***	***	***	***
Net sales:							
Quantity.....	448,092	447,644	508,163	496,540	479,798	370,580	389,301
Value.....	377,801	358,958	395,262	389,326	372,986	290,848	273,939
Unit value.....	\$0.84	\$0.80	\$0.78	\$0.78	\$0.78	\$0.78	\$0.70
Cost of goods sold (COGS).....	265,835	251,424	299,220	288,953	304,219	239,504	222,219
Gross profit or (loss).....	111,966	107,534	96,042	100,373	68,767	51,344	51,720
SG&A expenses.....	14,302	14,747	16,797	17,386	19,673	14,439	13,939
Operating income or (loss).....	97,664	92,787	79,245	82,987	49,094	36,905	37,781
Capital expenditures.....	***	***	***	***	***	***	***
Unit COGS.....	\$0.59	\$0.56	\$0.59	\$0.58	\$0.63	\$0.65	\$0.57
Unit SG&A expenses.....	\$0.03	\$0.03	\$0.03	\$0.04	\$0.04	\$0.04	\$0.04
Unit operating income or (loss).....	\$0.22	\$0.21	\$0.16	\$0.17	\$0.10	\$0.10	\$0.10
COGS/sales (fn1).....	70.4	70.0	75.7	74.2	81.6	82.3	81.1
Operating income or (loss)/sales (fn1).....	25.9	25.8	20.0	21.3	13.2	12.7	13.8

Table continued next page.

Table C-1--Continued

CACCS: Summary data concerning the U.S. market, 2009-13, January-September 2013, and January-September 2014

(Quantity=1,000 dry pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Period changes					
	2009-13	Calendar year 2009-10	2010-11	2011-12	2012-13	Jan-Sept 2013-14
U.S. consumption quantity:						
Amount.....	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***
Importers' share (fn1):						
Canada.....	***	***	***	***	***	***
China.....	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***
All others sources.....	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***
U.S. consumption value:						
Amount.....	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***
Importers' share (fn1):						
Canada.....	***	***	***	***	***	***
China.....	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***
All others sources.....	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***
U.S. imports from:						
Canada						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***
China						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***
Subject sources:						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***
All other sources:						
Quantity.....	48.0	55.0	(17.1)	3.4	11.5	1.5
Value.....	29.1	37.8	(12.2)	0.7	5.9	(5.8)
Unit value.....	(12.7)	(11.1)	5.9	(2.5)	(4.9)	(7.2)
Ending inventory quantity.....	(15.9)	(16.2)	(13.7)	3.6	12.2	37.0
Total imports:						
Quantity.....	***	***	***	***	***	***
Value.....	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***
U.S. producers':						
Average capacity quantity.....	3.0	0.0	0.0	2.2	0.8	0.0
Production quantity.....	(3.1)	(13.1)	10.3	9.6	(7.8)	1.8
Capacity utilization (fn1).....	(5.5)	(12.0)	8.2	6.3	(8.0)	1.6
U.S. shipments:						
Quantity.....	13.3	2.9	16.6	(2.2)	(3.5)	7.4
Value.....	4.7	(0.9)	12.9	(1.7)	(4.8)	(4.0)
Unit value.....	(7.5)	(3.7)	(3.2)	0.6	(1.4)	(10.6)
Export shipments:						
Quantity.....	(36.4)	(21.4)	(14.7)	(2.8)	(2.4)	(23.1)
Value.....	(40.4)	(31.8)	(16.0)	0.6	3.4	(26.6)
Unit value.....	(6.4)	(13.3)	(1.6)	3.5	5.9	(4.5)
Ending inventory quantity.....	***	***	***	***	***	***
Inventories/total shipments (fn1).....	***	***	***	***	***	***
Production workers.....	***	***	***	***	***	***
Hours worked (1,000s).....	***	***	***	***	***	***
Wages paid (\$1,000).....	***	***	***	***	***	***
Hourly wages.....	***	***	***	***	***	***
Productivity (dry pounds per hour).....	***	***	***	***	***	***
Unit labor costs.....	***	***	***	***	***	***
Net sales:						
Quantity.....	7.1	(0.1)	13.5	(2.3)	(3.4)	5.1
Value.....	(1.3)	(5.0)	10.1	(1.5)	(4.2)	(5.8)
Unit value.....	(7.8)	(4.9)	(3.0)	0.8	(0.9)	(10.3)
Cost of goods sold (COGS).....	14.4	(5.4)	19.0	(3.4)	5.3	(7.2)
Gross profit or (loss).....	(38.6)	(4.0)	(10.7)	4.5	(31.5)	0.7
SG&A expenses.....	37.6	3.1	13.9	3.5	13.2	(3.5)
Operating income or (loss).....	(49.7)	(5.0)	(14.6)	4.7	(40.8)	2.4
Capital expenditures.....	***	***	***	***	***	***
Unit COGS.....	6.9	(5.3)	4.8	(1.2)	9.0	(11.7)
Unit SG&A expenses.....	28.5	3.2	0.3	5.9	17.1	(8.1)
Unit operating income or (loss).....	(53.1)	(4.9)	(24.8)	7.2	(38.8)	(2.5)
COGS/sales (fn1).....	11.2	(0.3)	5.7	(1.5)	7.3	(1.2)
Operating income or (loss)/sales (fn1).....	(12.7)	(0.0)	(5.8)	1.3	(8.2)	1.1

fn1.--Report data are in percent and period changes are in percentage points.

fn2.--Undefined.



**APPENDIX D**

**RESPONSES OF U.S. PRODUCERS, U.S. IMPORTERS,  
U.S. PURCHASERS, AND FOREIGN PRODUCERS  
CONCERNING THE SIGNIFICANCE OF THE ANTIDUMPING DUTY ORDERS  
AND THE LIKELY EFFECTS OF REVOCATION**



**Table D-1**

**CACCS: U.S. producers' characterization of the effects of orders and anticipated effects of the revocation of the orders**

\* \* \* \* \*

**Table D-2**

**CACCS: U.S. producers' characterization of the anticipated effects of the revocation of the orders**

\* \* \* \* \*

**Table D-3**

**CACCS: U.S. importers' characterization of the effects of orders**

\* \* \* \* \*

**Table D-4**

**CACCS: U.S. importers' characterization of the anticipated effects of the revocation of the orders**

\* \* \* \* \*

**Table D-5**

**CACCS: Foreign producers' characterization of the effects of orders**

\* \* \* \* \*

**Table D-6**

**CACCS: Foreign producers' characterization of the anticipated effects of the revocation of the orders**

\* \* \* \* \*

**Table D-7**

**CACCS: U.S. purchasers' characterization of the anticipated effects of the revocation of the orders on activities of the firm**

\* \* \* \* \*

**Table D-8**

**CACCS: U.S. purchasers' characterization of the anticipated effects of the revocation of the orders on overall market**

\* \* \* \* \*

