

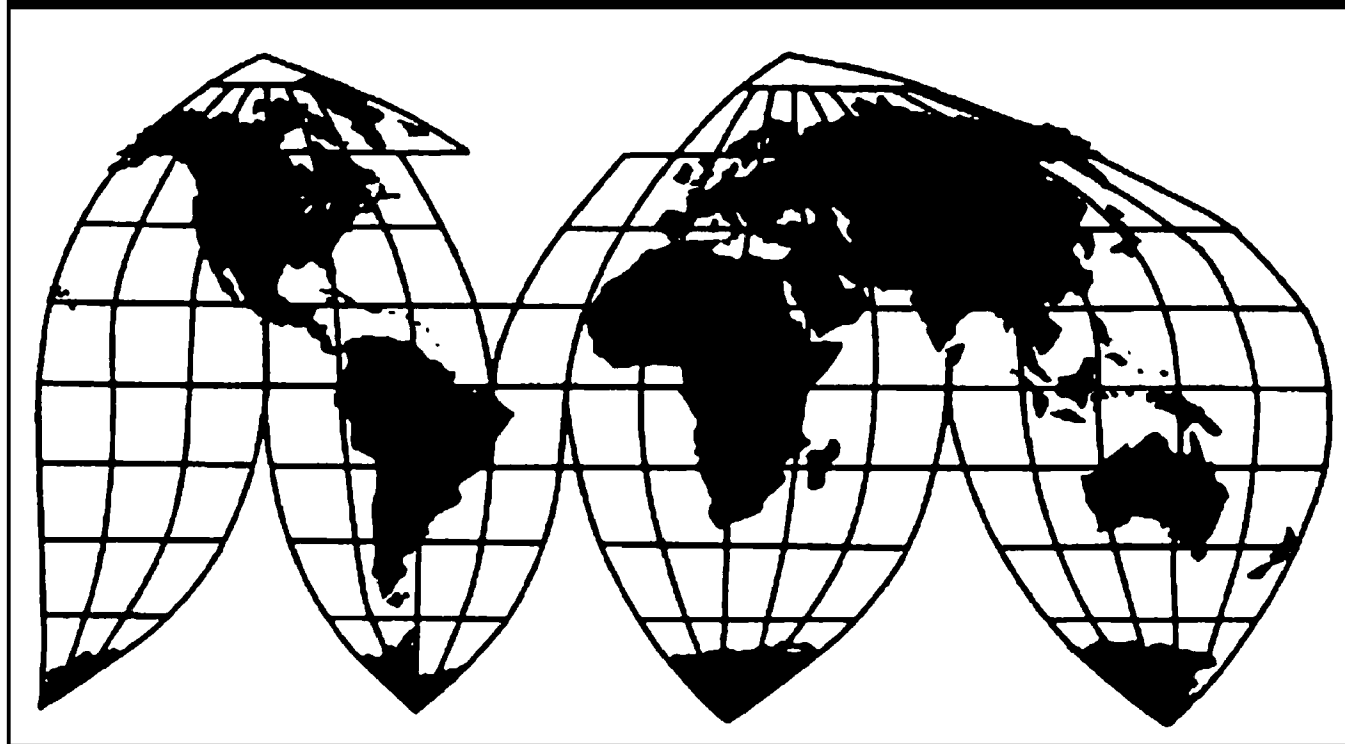
# **Glass Containers from China**

Investigation No. 701-TA-630 (Final)

**Publication 5068**

**June 2020**

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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Pamela Davis, Economist  
Jennifer Brinckhaus, Accountant  
Lita David-Harris, Statistician  
Shova KC, Statistician  
Brian Soiset, Attorney  
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Note.—Information that would reveal confidential operations of individual concerns may not be published. Such information is identified by brackets in confidential reports and is deleted and replaced with asterisks (\*\*\*) in public reports.



# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 701-TA-630 (Final)

Glass Containers from China

## DETERMINATION

On the basis of the record<sup>1</sup> developed in the subject investigation, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that an industry in the United States is not materially injured or threatened with material injury by reason of imports of glass containers from China, provided for in subheading 7010.90.50 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce (“Commerce”) to be subsidized by the government of China.<sup>2</sup>

## BACKGROUND

The Commission instituted this investigation effective September 25, 2019, following receipt of antidumping and countervailing duty petitions filed with the Commission and Commerce by the American Glass Packaging Coalition, Tampa, Florida, and Chicago, Illinois. The Commission scheduled the final phase of the investigation following notification of a preliminary determination by Commerce that imports of glass containers from China were being subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)). Notice of the scheduling of the final phase of the Commission’s investigation 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* of March 6, 2020 (85 FR 13183). In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, and in accordance with 19 U.S.C. 1677c(a)(1), the Commission did not conduct an in-person hearing scheduled for May 6, 2020.

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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)).

<sup>2</sup> 85 FR 31141 (May 22, 2020).

Instead, the Commission conducted its hearing through a series of written questions, submissions of written testimony, written responses to questions, Commissioner questions and answers along with closing arguments and rebuttal remarks via video conference, and posthearing briefs; all persons who requested the opportunity were permitted to participate.

## Views of the Commission

Based on the record in the final phase of this investigation, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of glass containers from China found by the U.S. Department of Commerce (“Commerce”) to be subsidized by the government of China.<sup>1</sup>

### I. Background

The American Glass Packaging Coalition (“Petitioner”), which includes U.S. producers Anchor Glass Corp. (“Anchor”) and Ardagh Glass Inc. (“Ardagh”), filed the petition in this investigation on September 25, 2019.<sup>2</sup> The Petitioner participated in the hearing and submitted written testimony, responses to questions from the Commission, prehearing and posthearing briefs, and final comments.<sup>3</sup>

Respondent entities participating in this investigation include the following: two importers of subject merchandise, Berlin Packaging, LLC (“Berlin Packaging”) and TricorBraun, Inc. (“TricorBraun”), individually participated in the hearing and submitted written testimony, responses to questions from the Commission, prehearing and posthearing briefs, and final comments; a foreign producer of subject merchandise, Yamamura Glass Qinhuangdao Co., Ltd. (“YGQ”), also submitted a prehearing brief and posthearing letter.

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<sup>1</sup> Whether establishment of an industry is materially retarded by reason of subject imports is not at issue in this investigation.

<sup>2</sup> Although the antidumping and countervailing duty petitions for glass containers from China were filed on the same day, September 25, 2019, the investigation schedules became staggered when Commerce did not align its countervailing duty investigation with that of its antidumping duty investigation. *Certain Glass Containers from the People’s Republic of China: Preliminary Affirmative Countervailing Duty Determination*, 85 Fed. Reg. 12,256 (March 2, 2020). Commerce has issued its final countervailing duty determination for China, but it has not yet issued its final antidumping duty determination. *Certain Glass Containers from the People’s Republic of China: Final Affirmative Countervailing Duty Determination*, 85 Fed. Reg. 31,141 (May 22, 2020) (“Final CVD Determination”). Pursuant to the statutory provision on staggered investigations, the record for each of these investigations will be the same except that the final Commerce antidumping duty determination, and the parties’ final comments concerning that determination, will be added to the record of the antidumping duty investigation. See 19 U.S.C. § 1677(7)(G)(iii).

<sup>3</sup> In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its hearing through prehearing briefs, written questions, submissions of written testimony, written responses to questions (the “Midhearing Briefs”), question/answers and closing statements/rebuttal comments via teleconference (the “Hearing Transcript”), and posthearing briefs as set forth in procedures provided to the parties.

U.S. industry data are based on questionnaire responses from six firms that accounted for the vast majority of domestic production of glass containers in 2019. U.S. import volumes for calculating apparent U.S. consumption and market shares are based on adjusted official import statistics, while U.S. shipments of imports to different channels of distribution and end user types are based on questionnaire responses from firms accounting for \*\*\* percent of U.S. imports from China in 2019 under relevant HTS statistical reporting numbers.<sup>4</sup> The Commission received responses to its questionnaires from nine foreign producers and/or exporters of subject merchandise whose exports accounted for approximately \*\*\* percent of U.S. imports of subject merchandise in 2019.<sup>5</sup>

## II. Domestic Like Product

### A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the “domestic like product” and the “industry.”<sup>6</sup> Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Tariff Act”), defines the relevant domestic industry as the “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>7</sup> In turn, 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.”<sup>8</sup>

By statute, the Commission’s “domestic like product” analysis begins with the “article subject to an investigation,” *i.e.*, the subject merchandise as determined by Commerce.<sup>9</sup> Therefore, Commerce’s determination as to the scope of the imported merchandise that is

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<sup>4</sup> Confidential Report (CR), Memorandum INV-SS-065 (June 1, 2020) at I-4 and IV-1; Public Report, Glass Containers from China, Inv. No. 701-TA-630 (Final), USITC Pub. 5068 (July 2020) (“PR”) at I-4 and IV-1.

<sup>5</sup> CR/PR at VII-3.

<sup>6</sup> 19 U.S.C. § 1677(4)(A).

<sup>7</sup> 19 U.S.C. § 1677(4)(A).

<sup>8</sup> 19 U.S.C. § 1677(10).

<sup>9</sup> 19 U.S.C. § 1677(10). The Commission must accept Commerce’s determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See, e.g., USEC, Inc. v. United States*, 34 Fed. App’x 725, 730 (Fed. Cir. 2002) (“The ITC may not modify the class or kind of imported merchandise examined by Commerce.”); *Algoma Steel Corp. v. United States*, 688 F. Supp. 639, 644 (Ct. Int’l Trade 1988), *aff’d*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

subsidized and/or sold at less than fair value is “necessarily the starting point of the Commission’s like product analysis.”<sup>10</sup> The Commission then defines the domestic like product in light of the imported articles Commerce has identified.<sup>11</sup>

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis.<sup>12</sup> No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.<sup>13</sup> The Commission looks for clear dividing lines among possible like products and disregards minor variations.<sup>14</sup>

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<sup>10</sup> *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, 949 F.3d 710, 714-715 (Fed. Cir. Feb. 7, 2020) (the statute requires the Commission to start with Commerce’s subject merchandise in reaching its own like product determination).

<sup>11</sup> *Cleo*, 501 F.3d at 1298 n.1 (“Commerce’s {scope} finding does not control the Commission’s {like product} determination.”); *Hosiden Corp. v. Advanced Display Mfrs.*, 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington*, 747 F. Supp. at 748–52 (affirming the Commission’s determination defining six like products in investigations where Commerce found five classes or kinds).

<sup>12</sup> *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); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).

<sup>13</sup> *See, e.g., S. Rep. No. 96-249 at 90-91 (1979).*

<sup>14</sup> *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; *see also S. Rep. No. 96-249 at 90-91* (Congress has indicated that the like product standard should not be interpreted in “such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not ‘like’ each other, nor should the definition of ‘like product’ be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.”).

## B. Product Description

Commerce defined the scope of the imported merchandise under investigation as follows:

...certain glass containers with a nominal capacity of 0.059 liters (2.0 fluid ounces) up to and including 4.0 liters (135.256 fluid ounces) and an opening or mouth with a nominal outer diameter of 14 millimeters up to and including 120 millimeters. The scope includes glass jars, bottles, flasks and similar containers; with or without their closures; whether clear or colored; and with or without design or functional enhancements (including, but not limited to, handles, embossing, labeling, or etching).

Excluded from the scope of the investigations are: (1) glass containers made of borosilicate glass, meeting United States Pharmacopeia requirements for Type 1 pharmaceutical containers; (2) glass containers without 'mold seams', 'joint marks', or 'parting lines'; and (3) glass containers without a 'finish' (i.e., the section of a container at the opening including the lip and ring or collar, threaded or otherwise compatible with a type of closure to seal the container's contents, including but not limited to a lid, cap, or cork).

Glass containers subject to this investigation are specified within the Harmonized Tariff Schedule of the United States ("HTSUS") under subheadings 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049, and 7010.90.5055. The HTSUS subheadings are provided for convenience and customs purposes only. The written description of the scope of the investigations is dispositive.<sup>15</sup>

Glass containers are bottles, jars, and other glass envelopments that are used for the package and transport of beverages, food, and other materials.<sup>16</sup> They typically include a "finish" at the opening that is compatible with a closure and allows the container to be sealed for storage of its contents.<sup>17</sup> Glass containers are primarily used as storage in the food and beverage industry, and they provide certain advantages over other container types because of their durability, strength, and ability to preserve the taste and flavor of a food or beverage.<sup>18</sup> Manufacturing of glass containers entails the mixing of raw materials (*e.g.*, sand, soda ash, cullet/recycled glass, etc.) to create a "batch" with the desired characteristics of a container;

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<sup>15</sup> Final CVD Determination. Commerce's scope of investigation has not changed from that proposed in Commerce's initiation notices. 85 Fed. Reg. at 31,142.

<sup>16</sup> CR/PR at I-8-9. Other such products include "nutraceuticals," commonly referred to as vitamins. CR/PR at II-1 n.1.

<sup>17</sup> CR/PR at I-9.

<sup>18</sup> CR/PR at I-9.

the melting of the batch in a furnace; the forming of molten glass into the desired shape; and finally an annealing process that cools the internal and external surfaces at a controlled rate.<sup>19</sup>

### **C. Domestic Like Product Analysis**

In its preliminary determinations, the Commission defined a single domestic like product, co-extensive with the scope of investigations, and no party otherwise requested that the Commission define a different domestic like product. The Commission found that glass containers of all types shared similar physical structures and chemical compositions, end uses, and channels of distribution; it also found that glass containers with similar designs may be interchangeable and have similar prices. The Commission further noted that record evidence was mixed regarding manufacturing facilities, as a wide range of products could be made at individual facilities but that differences in forming method or product color could limit the manufacture of products at some facilities.<sup>20</sup>

In the final phase of this investigation, Petitioner continues to advocate that the Commission define the domestic like product as all glass containers, coextensive with the scope of investigation,<sup>21</sup> and no respondent party contests the definition of the domestic like product from the preliminary determinations.<sup>22</sup> Furthermore, the record does not contain any information about the characteristics of glass containers suggesting a different definition from that in the preliminary phase.<sup>23</sup>

Accordingly, we continue to define a single domestic like product consisting of all glass containers, coextensive with the scope of investigation.

## **III. Domestic Industry and Related Parties**

The domestic industry is defined 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>24</sup> In defining the domestic

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<sup>19</sup> CR/PR at I-10-17.

<sup>20</sup> *Glass Containers from China*, Inv. Nos. 701-TA-630 and 731-TA-1462 (Preliminary), USITC Pub. 4996 (Nov. 2019) (“Preliminary Determinations”), at 8-12.

<sup>21</sup> Petitioner’s Prehearing Br. at 5.

<sup>22</sup> Berlin Packaging Prehearing Br. at 4; TricorBraun Prehearing Br. at 4. YGQ does not address the definition of domestic like product in its arguments.

<sup>23</sup> See *generally* CR/PR at I-8-19.

<sup>24</sup> 19 U.S.C. § 1677(4)(A).

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.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.<sup>25</sup> Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.<sup>26</sup> This investigation raises an issue under the related party provision with respect to one domestic producer, \*\*\*, which imported subject merchandise during the January 1, 2017 through December 31, 2019 period of investigation ("POI"), and is \*\*\*.<sup>27</sup> In the preliminary phase, the Commission found that appropriate circumstances did not exist to exclude this firm from the domestic industry.<sup>28</sup> Neither the Petitioner nor respondent parties argue that the Commission should define the domestic industry differently from the preliminary determinations.<sup>29</sup>

\*\*\* is \*\*\* U.S. producer, accounting for \*\*\* percent of U.S. production in 2019, and it \*\*\*.<sup>30</sup> It qualifies as a related party because it is \*\*\*,<sup>31</sup> and it directly imported subject

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<sup>25</sup> See *Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

<sup>26</sup> The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326-31 (Ct. Int'l. Trade 2015); see also *Torrington Co. v. United States*, 790 F. Supp. at 1168.

<sup>27</sup> CR/PR at Tables III-2 & III-8.

<sup>28</sup> Preliminary Determinations at 13-15.

<sup>29</sup> Petitioner's Prehearing Br. at 5.

<sup>30</sup> CR/PR at Table III-1.

<sup>31</sup> CR/PR at Table III-2. \*\*\*. *Id.*



merchandise during the POI.<sup>32</sup> While its imports of subject merchandise increased from 2017 to 2018, these volumes decreased in 2019 to a lower level than at the beginning of the POI.<sup>33</sup> Additionally, these volumes were \*\*\* than its domestic production, with a ratio of subject imports to its domestic production of \*\*\* percent in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019.<sup>34</sup> As an explanation for importing subject merchandise during the POI, \*\*\* reported \*\*\*.<sup>35</sup>

\*\*\* domestic production far surpasses its volume of subject imports, and it is \*\*\*. These facts indicate that its primary interest lies in domestic production rather than importation. Thus, we find that appropriate circumstances do not exist to exclude it from the domestic industry as a related party.

Accordingly, and in light of our definition of the domestic like product, we define the domestic industry as all domestic producers of glass containers.

#### **IV. No Material Injury by Reason of Subject Imports<sup>36</sup>**

Based on the record in the final phase of this investigation, we find that an industry in the United States is not materially injured by reason of imports of glass containers from China that Commerce has found to be subsidized by the government of China.

##### **A. Legal Standards**

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.<sup>37</sup> In making this

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<sup>32</sup> CR/PR at Table III-8.

<sup>33</sup> CR/PR at Table III-8. \*\*\* imported subject merchandise totaling \*\*\* gross in 2017, \*\*\* gross in 2018, and \*\*\* gross in 2019. *Id.* One gross equals 144 glass containers. CR/PR at I-4 n.9.

<sup>34</sup> CR/PR at Table III-8.

<sup>35</sup> CR/PR at Table III-8.

<sup>36</sup> Pursuant to section 771(24) of the Tariff Act, imports from a subject country that are less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petitions shall be deemed negligible. 19 U.S.C. §§ 1673b(a), 1677(24)(A)(i). Based on adjusted official import statistics, the data for the September 2018 through August 2019 period preceding the filing of the petition indicate that subject imports from China in the countervailing duty investigation were \*\*\* percent of total imports by quantity during this period. CR/PR at Table IV-4. Accordingly, negligibility is not an issue in this investigation.

<sup>37</sup> 19 U.S.C. §§ 1671d(b), 1673d(b).

determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.<sup>38</sup> The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”<sup>39</sup> In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>40</sup> No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>41</sup>

Although the statute requires the Commission to determine whether the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports,<sup>42</sup> it does not define the phrase “by reason of,” indicating that this aspect of the injury analysis is left to the Commission’s reasonable exercise of its discretion.<sup>43</sup> In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the “by reason of” standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.<sup>44</sup>

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<sup>38</sup> 19 U.S.C. § 1677(7)(B). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each {such} factor ... and explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B).

<sup>39</sup> 19 U.S.C. § 1677(7)(A).

<sup>40</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>41</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>42</sup> 19 U.S.C. §§ 1671d(b), 1673d(b).

<sup>43</sup> *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) (“{T}he statute does not ‘compel the commissioners’ to employ {a particular methodology}.”), *aff’d*, 944 F. Supp. 943, 951 (Ct. Int’l Trade 1996).

<sup>44</sup> The Federal Circuit, in addressing the causation standard of the statute, observed that “[a]s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred “by reason of” the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.’” *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass’n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.<sup>45</sup> In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.<sup>46</sup> Nor does the “by reason of” standard require that unfairly traded imports be the “principal” cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.<sup>47</sup> It is

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<sup>45</sup> The Statement of Administrative Action for the Uruguay Round Agreements Act (“SAA”) at 851-52 (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry”); *accord Mittal Steel*, 542 F.3d at 877.

<sup>46</sup> SAA at 851-52 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports.”); *Taiwan Semiconductor Industry Ass’n*, 266 F.3d at 1345 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int’l Trade 2002) (“{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury” or make “bright-line distinctions” between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that “{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e.*, it is not an ‘other causal factor,’ then there is nothing to further examine regarding attribution to injury”), *citing Gerald Metals*, 132 F.3d at 722 (the statute “does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

<sup>47</sup> S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

clear that the existence of injury caused by other factors does not compel a negative determination.<sup>48</sup>

Assessment of whether material injury to the domestic industry is “by reason of” subject imports “does not require the Commission to address the causation issue in any particular way” as long as “the injury to the domestic industry can reasonably be attributed to the subject imports.”<sup>49</sup> The Commission ensures that it has “evidence in the record” to “show that the harm occurred ‘by reason of’ the LTFV imports,” and that it is “not attributing injury from other sources to the subject imports.”<sup>50</sup> The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”<sup>51</sup>

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.<sup>52</sup> Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.<sup>53</sup>

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<sup>48</sup> See *Nippon Steel Corp.*, 345 F.3d at 1381 (“an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the ‘dumping’ need not be the sole or principal cause of injury.”).

<sup>49</sup> *Mittal Steel*, 542 F.3d at 876 & 78; see also *id.* at 873 (“While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured ‘by reason of’ subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.”) citing *United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission’s causation analysis as comporting with the Court’s guidance in *Mittal*.

<sup>50</sup> *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant “other factor” may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

<sup>51</sup> *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also *Mittal Steel*, 542 F.3d at 879 (“*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was ‘by reason’ of subject imports.”).

<sup>52</sup> We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

<sup>53</sup> *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp.*, 458 F.3d at 1350, citing *U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 (“The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.”).

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

The following conditions of competition inform our analysis of whether there is material injury or threat of material injury by reason of subject imports.

### **1. Data Considerations**

In the preliminary phase, no party took a position as to whether quantity- or value-based data are a better measure for glass containers, and the Commission relied primarily on quantity-based indicators for its analysis while also taking into consideration value-based data where appropriate.<sup>54</sup> In the final phase of this investigation, Petitioner now argues that since the subject merchandise varies significantly in size, characteristics, cost, and price, that value is “a better metric than quantity in terms of capturing and understanding the impact of subject imports.”<sup>55</sup> As an initial matter, we note that Petitioner has not been consistent with respect to this position. In the preliminary phase of this investigation, Petitioner relied primarily on quantity-based data, and even in the final phase of this investigation, relied on quantity-based data in some instances.<sup>56</sup> Petitioner has acknowledged that product mix concerns may be mitigated by controlling for end-use product types, such as removing values for beer containers from the overall product mix.<sup>57</sup> The record in this final phase includes U.S. shipment data for different end-use container types, which allows us to evaluate any differences there may be in shipments and other indicators with respect to end-use product types.<sup>58</sup> Accordingly, and consistent with the Commission’s determinations in the preliminary phase, we rely primarily on quantity-based data in analyzing imports, U.S. shipments, and output, but we also consider value-based data where appropriate.<sup>59</sup>

In addition, Petitioner argues that given the incomplete questionnaire responses from U.S. importers, when measuring import shipments to different end-use product manufacturers

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<sup>54</sup> Preliminary Determinations at 21 n.88.

<sup>55</sup> Petitioner’s Prehearing Br. at 21-22. In some instances, Petitioner relies only on quantity-based data. *See, e.g.*, Petitioner’s Prehearing Br. at 8.

<sup>56</sup> *See, e.g.*, Petitions, Vol. I at 18 (presenting quantity-based data to argue that subject import volumes were significant) and Exh. I-16 (relying only on quantity-based data to calculate apparent U.S. consumption and market shares); Petitioner’s Prehearing Br. at 8 (presenting quantity-based data notwithstanding its advocating for value-based data).

<sup>57</sup> *See, e.g.*, Petitioner’s Prehearing Br. at 46 (arguing that the Commission “can control” product mix issues in comparing AUVs by excluding beer bottles).

<sup>58</sup> *See* U.S. shipment data at Appendix F.

<sup>59</sup> We note, however, that trends in the glass containers industry are largely consistent whether measured by quantity- or value-based indicators. *See generally* CR/PR at Table C-1.

the Commission should rely on import data and subheadings from the Harmonized Tariff Schedule (“HTS”).<sup>60</sup> However, as Petitioner has acknowledged, HTS descriptions as contained in the official import data, are not specific to end-use container types (*e.g.*, beer, wine, food containers) and therefore may contain a mix of different container types; rather, HTS descriptions for glass containers at the 10-digit level use other criteria to delineate subheadings such as size, capacity, and type of opening, which results in overlap of end-use container types (*e.g.*, wine and spirits containers) within these subheadings.<sup>61</sup> In contrast, questionnaire responses from U.S. importers accounting for \*\*\* percent of U.S. imports from China under relevant HTS statistical reporting numbers in 2019<sup>62</sup> are specific to end-use container types. Accordingly, we rely on U.S. shipment data from importers’ questionnaire responses as the most specific information regarding these container types, while recognizing in our analysis that such data are understated for shipments of imports (subject and nonsubject).

## 2. Demand Considerations

The vast majority of glass containers are intermediate products, which are used to store and transport food, beverages, and other products to end users.<sup>63</sup> A small portion of glass containers are end-use consumer goods, such as those for home-canning or home décor.<sup>64</sup> Demand for glass containers exhibits some seasonality, with demand increasing at harvest season for some agricultural products, and for certain beverages in warm weather or holiday seasons.<sup>65</sup> Responding firms reported various substitutes for glass containers, including aluminum cans, plastic/PET bottles, flexible pouches, boxed wine, metal containers/kegs, and

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<sup>60</sup> Petitioner’s Prehearing Br. at 20-21. As noted above, we have relied on adjusted official import data when measuring overall apparent U.S. consumption and market shares. CR/PR at IV-1.

<sup>61</sup> HTS subheadings under 7010.90.50 further divide imports by size, capacity, and opening, but not end-use product type. See Preliminary Determinations at Table IV-3, note (describing subheadings under 7010.90.50). Petitioner acknowledges that both wine containers and spirits containers would be encompassed under the same subheading. Hearing Tr. at 61 (Pickard); Petitioner’s Posthearing Br., Resp. to Comm. Questions, at 30.

<sup>62</sup> CR/PR at IV-1.

<sup>63</sup> CR/PR at II-1.

<sup>64</sup> CR/PR at II-1.

<sup>65</sup> CR/PR at II-13-14. Five of six responding domestic producers, 14 of 25 U.S. importers, and \*\*\* of \*\*\* purchasers indicated that the market for glass containers is subject to business cycles, including seasonality such as increased demand during harvests for grapes or during warmer weather for beer. CR/PR at II-14-15.

ceramic containers.<sup>66</sup> Parties have noted that glass containers have certain advantages over other packaging materials because of their relative durability and ability to preserve a product's taste/freshness.<sup>67</sup>

Demand for glass containers derives primarily from demand for the food or beverages stored within them, and the record indicates varying demand trends for such end-use products over the POI.<sup>68</sup> Beer accounted for the largest portion of the domestic industry's shipments over the POI;<sup>69</sup> questionnaire responses and available industry data indicate that demand for beer decreased over the POI, that demand for domestic beer relative to imported beer declined, and that demand for beer in glass containers relative to beer in cans or kegs declined.<sup>70</sup> A majority of responding U.S. importers and purchasers indicated that demand for wine increased over the POI,<sup>71</sup> and available industry data indicate that both the production of wine and wine consumption increased over the POI.<sup>72</sup> All responding U.S. producers, importers, and purchasers reported that demand for spirits increased over the POI,<sup>73</sup> and industry data indicate that the volume of spirits consumed increased between 2016 and 2018.<sup>74</sup> Majorities of responding U.S. producers and purchasers, and a plurality of importers, indicated

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<sup>66</sup> CR/PR at II-21. Additionally, products not packaged in glass containers may serve as indirect substitutes. For instance, a shift in demand to drinks in aluminum cans results in reduced demand for glass containers. *Id.*

<sup>67</sup> CR/PR at I-9.

<sup>68</sup> CR/PR at II-13.

<sup>69</sup> By quantity, a \*\*\* of the domestic industry's shipments of glass containers were to beer manufacturers each year of the POI, encompassing \*\*\* percent of shipments in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019. By value, the domestic industry's shipments to beer manufacturers were also greater than those to any other end-use manufacturer, encompassing \*\*\* percent of shipments in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019. *Calculated from* CR/PR at Table F-1 (U.S. shipments to beer manufacturers) *and* Table C-1 (total U.S. shipments).

<sup>70</sup> CR/PR at Tables II-5 & II-6; CR/PR at II-17. All responding U.S. producers, importers, and purchasers indicated that demand for beer declined over the POI. According to the Beer Institute, consumption of beer in the United States declined by 2.4 percent between 2016 and 2018 and by 0.9 percent between January-June 2018 and January-June 2019. Data from the Beer Institute further indicate that shipments of domestic beer declined most for those packaged in bottles; shipments of beer packaged in cans and kegs fluctuated somewhat from year-to-year but declined to a lesser degree than those in bottles. U.S. shipments of imported beer increased throughout the POI. *Id.*

<sup>71</sup> CR/PR at Table II-5. Responses from U.S. producers were mixed: one firm indicated that demand for wine increased, and one that it decreased. *Id.*

<sup>72</sup> CR/PR at II-18-19.

<sup>73</sup> CR/PR at Table II-5.

<sup>74</sup> CR/PR at II-19. Industry data indicate that most of the quantities were for vodka and whiskey products. *Id.*

that demand for other beverages increased over the POI.<sup>75</sup> Responses were mixed with regard to demand for glass containers storing food products, with a plurality of U.S. producers and purchasers reporting an increase in demand, but a majority of importers reporting fluctuating demand.<sup>76</sup>

Apparent U.S. consumption of glass containers, by quantity, decreased each year of the POI, from \*\*\* gross in 2017 to \*\*\* gross in 2018 and \*\*\* gross in 2019.<sup>77</sup>

### 3. Supply Considerations

The domestic industry accounted for the largest share of the U.S. market by quantity during the POI, although its market share declined from 2017 to 2019. Its market share was \*\*\* percent in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019.<sup>78</sup> The domestic industry's reported annual production capacity decreased from 219.6 million gross in 2017 to 205.1 million gross in 2018 and 189.6 million gross in 2019.<sup>79</sup> The domestic industry's annual capacity was \*\*\*.<sup>80</sup> Its capacity utilization fluctuated within a narrow range over the POI, initially increasing from 84.0 in 2017 to 84.1 percent in 2018 before declining to 83.0 percent in 2019.<sup>81</sup>

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<sup>75</sup> CR/PR at Table II-5. Two of three responding U.S. producers, four of nine responding importers, and four of six purchasers reported that demand for other beverages increased. *Id.* Responding parties indicated that such "other beverages" for which demand increased included Kombucha. While parties also indicated that demand for hard seltzer increased, they also indicated that this product is primarily packaged in aluminum cans. CR/PR at II 20-21.

<sup>76</sup> CR/PR at Table II-5. One of three responding U.S. producers and three of six purchasers indicated that demand for glass containers for food storage increased; six of 11 importers reported that demand fluctuated. *Id.* Data from the U.S. Department of Agriculture indicates that per-household food expenditures increased by 7.8 percent between 2016 and 2018, although these data include food consumed both at home and at restaurants. CR/PR at II-20.

<sup>77</sup> CR/PR at Table IV-5. By value, apparent U.S. consumption initially increased slightly from \$\*\*\* in 2017 to \$\*\*\* in 2018 before declining to \$\*\*\* in 2019, its lowest level of the POI. *Id.*

<sup>78</sup> CR/PR at Table IV-5. By value, the domestic industry accounted for the largest market share as well, with this share declining between 2017 and 2019. It was \*\*\* percent in 2017 and \*\*\* percent in both 2018 and 2019. *Id.*

<sup>79</sup> CR/PR at Table III-4. Several domestic producers reported plant closures, as well as furnace shutdowns to reduce production capacity at existing plants. CR/PR at Table III-3.

<sup>80</sup> CR/PR at Table C-1.

<sup>81</sup> CR/PR at Table III-4.



Subject imports accounted for a smaller share of the market than either the domestic industry or nonsubject imports over the POI. By quantity, subject imports were \*\*\* percent of apparent U.S. consumption in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019.<sup>82</sup>

Nonsubject imports collectively accounted for the second-largest market share, by quantity, over the POI. This share increased each year of the POI, from \*\*\* percent in 2017 to \*\*\* percent in 2018 and \*\*\* percent in 2019.<sup>83</sup> The largest source of nonsubject imports was Mexico.<sup>84</sup>

The domestic industry, U.S. importers of subject merchandise, and U.S. importers of nonsubject imports each reported shipments to producers of different end-use product types, albeit in different concentrations.<sup>85</sup> Not all sources reported shipments to firms of similar size within these product types.<sup>86</sup>

#### 4. Substitutability and Other Conditions

On this record, we find that there is a moderate-to-high degree of substitutability between domestically produced glass containers and subject imports when made to the same shape, size, and end-use.<sup>87</sup> The degree of substitutability between domestic and imported glass containers depends on factors such as price, quality (including grade standards and defect rates), and conditions of sale (including availability, lead times between orders and delivery

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<sup>82</sup> CR/PR at Table IV-5. By value, subject imports' market share followed similar trends. Their market share was \*\*\* percent of apparent U.S. consumption in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019. *Id.*

<sup>83</sup> CR/PR at Table IV-5. By value, nonsubject imports also account for the second largest market share over the POI and increased each year. Their share was \*\*\* percent in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019. *Id.*

<sup>84</sup> CR/PR at IV-3. By value and quantity, Mexico individually accounted for a greater market share than subject imports each year of the POI, and this share increased each year. CR/PR at Table IV-5.

<sup>85</sup> U.S. producers' shipments were \*\*\* to alcohol beverage manufacturers (\*\*\* percent during the POI; including \*\*\* percent to beer manufacturers), with \*\*\* percentages to other beverage manufacturers, food manufacturers, and other end users (\*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively during the POI). U.S. importers' shipments of subject imports were more mixed, with the largest concentrations to food manufacturers (\*\*\* percent) and alcoholic beverage manufacturers (\*\*\* percent, including only \*\*\* percent to beer manufacturers)) during the POI, while shipments to other beverage manufacturers (\*\*\* percent and other end users (\*\*\* percent) accounted for lesser shipments. CR/PR at II-2-3; *see also* Staff Supplemental Research Material: U.S. Shipments by End-User Segment, EDIS Doc. 711777.

<sup>86</sup> *See* CR/PR at Tables G-1-G-6. We discuss further in the Impact section these differing concentrations by end-use product type and firm size.

<sup>87</sup> CR/PR at II-21.

dates, minimum order quantities, price discounts/rebates, and reliability of supply).<sup>88</sup> All U.S. producers and a plurality of U.S. importers (9 of 20) reported that domestically produced glass containers and subject imports are always or frequently interchangeable; eight U.S. importers reported they are sometimes interchangeable and three reported that they are infrequently or never interchangeable.<sup>89</sup> Four of 10 U.S. purchasers reported that the glass containers are always or frequently interchangeable, with another five purchasers stating they are sometimes interchangeable and one stating that they are infrequently interchangeable.<sup>90</sup> The vast majority of responding purchasers indicated that both domestically produced glass containers and subject imports always or usually meet minimum quality specifications.<sup>91</sup>

We find that price is an important factor in purchasing decisions for glass containers, although the record indicates that other factors, such as availability, quality exceeds industry standards, and reliability of supply are also important purchasing factors. When asked to report the top three factors considered in their purchasing decisions, the most often cited top three factors that firms consider in their purchasing decisions for glass containers were quality (11 firms), price/cost (7 firms), and availability/supply/lead time (6 firms); the vast majority of purchasers ranked quality as being the first most important factor for purchasing decisions.<sup>92</sup> Responses were mixed with regards to differences between glass containers produced in the United States and subject imports. A plurality of U.S. importers (9 of 21 responding firms) indicated that there are always non-price differences, six reported that there are frequently such differences, four indicated that there are sometimes, and two responded never. A majority of responding purchasers (6 of 10 responding firms) reported that there are frequently

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<sup>88</sup> CR/PR at II-21.

<sup>89</sup> CR/PR at II-13.

<sup>90</sup> CR/PR at Table II-13. Three responding U.S. producers indicated these products are “always” interchangeable and one responded that they are “frequently” interchangeable. A plurality of responding importers (eight of 20) reported that such products are “sometimes” interchangeable, five indicated that such products are “always” interchangeable, and four that they are “frequently” interchangeable. A majority of responding purchasers (five of nine) reported these products are “sometimes” interchangeable, one indicated that such products are “always” interchangeable and three responded that they are “frequently” interchangeable. *Id.*

<sup>91</sup> CR/PR at Table II-14. Nine of 11 responding purchasers reported that domestically produced glass containers “always” or “usually” meet minimum quality specifications, and 10 of 11 responding purchasers indicated that subject imports “always” or “usually” meet minimum quality specifications. *Id.*

<sup>92</sup> CR/PR at Table II-7. Eight of 11 responding purchasers identified quality as the “first” most important factor in purchasing decisions; the remaining purchasers reported price/cost, availability/supply/lead time, and other as the first most important factors. *Id.*

non-price differences.<sup>93</sup> When comparing the domestic product and subject imports, purchasers reported that they are comparable on most purchasing factors, but majorities of purchasers reported that domestic glass containers were inferior to subject imports regarding ability to exceed purchase forecasts,<sup>94</sup> availability, shape customization, minimum order quantities, and price.<sup>95</sup> U.S. purchasers asked to identify the main factors affecting their purchasing decisions most frequently cited availability, quality exceeds industry standards, reliability of supply, delivery time, product consistency, and price as “very important” factors.<sup>96</sup>

Domestically produced glass containers are primarily sold from inventories, while a slight majority of subject imports are produced-to-order. Lead times were similar between U.S. producers and importers for glass containers sold from U.S.-held inventory, while lead times were greater for U.S. importers’ sales that were produced-to-order or from foreign-held inventory.<sup>97</sup> The vast majority of U.S. producers’ U.S. commercial shipments in 2019 were sold through long-term contracts, while sales terms for U.S. importers’ were more mixed, with a plurality of sales made on a spot sale basis in 2019.<sup>98</sup> The vast majority of commercial U.S. shipments for domestic producers and importers of subject merchandise were to similar channels of distribution, including to distributors, alcoholic beverage manufacturers, other

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<sup>93</sup> CR/PR at Table II-15.

<sup>94</sup> Six of 11 responding U.S. purchasers reported providing suppliers with forecasts, with most reporting 12-month forecasts. CR/PR at II-12. Eight of 11 responding purchasers ranked the ability to exceed forecasts as “somewhat important” and the remaining three reported it as “very important.” CR/PR at Table II-9. Seven of 10 responding purchasers ranked the domestic product as “inferior” to subject imports for the ability to exceed forecasts. CR/PR at Table II-12.

<sup>95</sup> CR/PR at Table II-12. Majorities of responding purchasers also ranked domestically produced glass containers as superior to subject imports regarding delivery time and U.S. transportation costs. *Id.*

<sup>96</sup> CR/PR at Table II-9. Of 11 responding purchasers, all identified availability, quality exceeds industry standards, and reliability of supply as “very important”; ten of 11 responding firms identified delivery time and product consistency as “very important”; and eight of 11 responding firms identified price as “very important.” *Id.*

<sup>97</sup> CR/PR at II-25. U.S. producers reported that \*\*\* percent of their commercial U.S. shipments were sold from inventory, with lead times averaging \*\*\* days. U.S. importers reported that \*\*\* percent of their commercial U.S. shipments were produced-to-order with lead times averaging 84 days. The remaining \*\*\* percent of commercial U.S. shipments by U.S. importers were sold from inventories (\*\*\* percent from U.S.-held inventories, and \*\*\* percent from foreign-held inventories), with lead times averaging nine days for products sold from U.S. inventories and 79 days for products sold from foreign inventories. *Id.*

<sup>98</sup> CR/PR at Table V-2. Long-term contracts represented \*\*\* percent of responding U.S. producers’ 2019 commercial U.S. shipments. Of responding U.S. importers, \*\*\* percent of 2019 commercial U.S. shipments were on a spot basis, \*\*\* percent on an annual contract basis, \*\*\* percent on a short-term contract basis, and \*\*\* percent on a long-term contract basis. *Id.*

beverage manufacturers, and food manufacturers/other end users, but with different concentrations.<sup>99</sup> Both U.S. producers and importers reported selling glass containers to all geographic regions within the United States.<sup>100</sup>

As noted, the vast majority of glass containers are intermediate products used for storage and transport of end-use products; their share of the cost of end-use products varies but generally accounts for a small share of such costs.<sup>101</sup> Raw materials used in the production of glass containers include cullet (recycled glass), sand, soda ash, and limestone, with cullet accounting for the largest percentage of raw material costs in 2019 (35.7 percent) followed by soda ash (30.1 percent), sand (21.5 percent), and limestone (6.3 percent).<sup>102</sup> The record indicates that raw material costs varied over the POI, with small increases for sand and a decrease for soda ash.<sup>103</sup> While four of five responding U.S. producers reported that raw material costs increased over the POI, domestic producers' raw material costs as a share of the cost of goods sold ("COGS") decreased over the POI.<sup>104</sup>

As noted, glass containers encompass a wide variety of products, and differences in forming method or product color may limit the ability to produce some products at certain

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<sup>99</sup> CR/PR at Table II-1. U.S. producers' largest share of reported shipments were to alcoholic beverage manufacturers (between \*\*\* and \*\*\* percent for 2017-2019), followed by food manufacturers/other end users (between \*\*\* and \*\*\* percent), other beverage manufacturers (between \*\*\* and \*\*\* percent), and distributors (between \*\*\* and \*\*\* percent). U.S. producers had no reported commercial U.S. shipments to retailers. U.S. importers' largest share of reported commercial shipments were to food manufacturers/other end users (between \*\*\* and \*\*\* percent), followed by alcoholic beverage manufacturers (between \*\*\* and \*\*\* percent), distributors (between \*\*\* and \*\*\* percent), other beverage manufacturers (between \*\*\* and \*\*\* percent), and retailers (between \*\*\* and \*\*\* percent). *Id.*

<sup>100</sup> CR/PR at Table II-2.

<sup>101</sup> CR/PR at II-11. Domestic producers provided varying cost estimates, with \*\*\* estimating that glass containers account for 4 percent of the cost of a bottle of wine and 18 percent for other beverages, and \*\*\* estimating that they generally account for 18 percent of the costs of food, non-alcoholic beverages, and other products. Importers provided estimates ranged from 15 percent of the cost of food and non-food storage containers, 20 percent for food storage and non-alcoholic beverage uses, and as high as 83 percent for food storage or 84 percent for spirits. *Id.*

<sup>102</sup> CR/PR at Table V-1.

<sup>103</sup> CR/PR at V-1. The price of cullet depends on the color of the glass being produced and varies between regions of the United States. Reported prices for industrial sand changed infrequently between January 2017 and August 2018 (the most recent period for which data are available) and increased 1.6 percent over this period. Reported prices for soda ash increased 1.0 percent between January 2017 and December 2019 before declining by 15.2 percent between December 2019 and March 2020. *Id.*

<sup>104</sup> CR/PR at V-1-2 and Table VI-1. The domestic industry's raw materials costs as a ratio to COGS was 22.2 percent in 2017, 21.8 percent in 2018, and 21.5 percent in 2019. *Id.*

production facilities. Four U.S. producers reported retooling production facilities during the POI to switch production between glass container products and/or between products of different colors.<sup>105</sup> These firms reported varying estimates of the time and costs for such retooling, ranging between \*\*\* and \*\*\* to switch product types and between \*\*\* and \*\*\* to change product colors, and reported costs ranged from \$\*\*\* to \$\*\*\*.<sup>106</sup> U.S. producers and importers reported producing or offering a similar mix of products, product colors, and design elements.<sup>107</sup>

When ranking the importance of purchasing factors, 10 of 11 purchasers ranked minimum order quantities (“MOQs”) as either a very important or somewhat important purchasing factor.<sup>108</sup> Four of 11 purchasers reported having orders refused due to order size, and two of 6 responding U.S. producers and 8 of 24 importers reported refusing orders due to the order size.<sup>109</sup> <sup>110</sup> Purchasers’ responses indicate that domestic producers maintain larger MOQs than producers of subject imports for production runs of glass containers.<sup>111</sup>

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<sup>105</sup> CR/PR at Table III-5. \*\*\* reported retooling \*\*\* production facilities to allow for production of food and beverage containers; \*\*\* reported retooling \*\*\* production facilities to allow various conversions between wine, beer, and food containers; \*\*\* reported retooling \*\*\* production facilities to convert production from beer to food containers. \*\*\*, \*\*\*, and \*\*\* each also reported switching product colors at multiple production facilities during the POI. *Id.*

<sup>106</sup> CR/PR at Table III-5.

<sup>107</sup> CR/PR at Table IV-6. Only for glass perfume bottles did U.S. importers report offering this product type and domestic producers did not. *Id.*

<sup>108</sup> CR/PR at Table II-9. Five purchasers reported that minimum order quantities were “very important” and five that they were “somewhat important.” *Id.*

<sup>109</sup> CR/PR at II-23. These purchasers were \*\*\*. *Id.*

<sup>110</sup> U.S. producers reported production runs as small as \*\*\* gross, and U.S. importers reported that production runs in China ranged from \*\*\* to \*\*\* gross. CR/PR at II-23. The Petitioner indicates that domestic producers’ smallest production runs are “small batch orders,” but these appear to fall under annual and long-term contracts in which purchasers commit to larger overall quantities but may request individual smaller batches under the agreement. Petitioner’s Midhearing Br. at 24-25 & Exh. 13. The record indicates, however, that domestic producers maintain higher MOQs for glass containers not held in inventory, for which molds are not available, or that are not subject to larger purchase commitments under long-term and annual agreements. *See* Berlin Packaging Prehearing Br. at Exh 2 (including \*\*\*, \*\*\*, \*\*\*).

Importers \*\*\* noted that domestic minimum quantity requirements are all too high to be a viable option to supply their small- and medium-sized clients. CR/PR at II-24. Berlin Packaging has also identified seven instances when purchasers were unable to source containers domestically because they did not meet minimum order quantities, which in these instances could be between \*\*\*. Berlin Packaging Prehearing Br. at 18-19 & Exh. 2.

<sup>111</sup> CR/PR at Table II-8 & pg. II-23. For standard-type glass containers, U.S. purchasers reported MOQs for U.S. producers ranging from \*\*\* gross (for \*\*\*) to \*\*\* gross (for \*\*\*); for customized glass containers, purchasers reported that domestic producers’ MOQs ranged from \*\*\* gross (for \*\*\*) to \*\*\*

Effective September 24, 2018, subject imports were subject to a 10 percent ad valorem duty pursuant to Section 301 of the Trade Act of 1974 (“Section 301 tariffs”), which increased to a 25 percent ad valorem duty effective May 10, 2019.<sup>112</sup> The majority of responding U.S. producers and a plurality of importers reported that the Section 301 tariffs had not changed demand in the U.S. market,<sup>113</sup> nor supply of the domestic product.<sup>114</sup> The vast majority of U.S. producers and importers reported that section 301 tariffs had both (i) decreased the supply of subject imports and (ii) increased the supply of imports from nonsubject sources.<sup>115</sup> A majority of responding U.S. producers reported that section 301 tariffs had not changed prices for glass containers while a majority of importers reported that they had increased prices; a majority of U.S. producers and plurality of importers reported that section 301 tariffs had not changed raw material costs.<sup>116</sup>

Other conditions of the glass containers market include (i) agreements between U.S. producers and distributors that may include reciprocal “do not call” provisions, under which the distributor agrees to promote the products of the U.S. producer but both parties agree not to contact one another’s customers identified within the agreement,<sup>117</sup> and (ii) producers seeking to maintain high capacity utilization rates to cover the high fixed costs of maintaining and operating furnaces.<sup>118</sup>

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gross (for \*\*\*). Purchasers reported MOQs from subject imports ranging from \*\*\* gross to \*\*\* gross. *Id.*

<sup>112</sup> CR/PR at I-8 n.16.

<sup>113</sup> CR/PR at Table II-4. Two of three responding U.S. producers and nine of 18 responding importers reported that section 301 tariffs had not changed overall demand in the United States. *Id.*

<sup>114</sup> CR/PR at Table II-4. Two of three responding U.S. producers reported that section 301 tariffs had not changed the supply of the domestic product; six of 16 responding importers reported that they had not changed the supply of the domestic product.

<sup>115</sup> CR/PR at Table II-4. All responding U.S. producers, and 14 of 17 responding importers, reported that section 301 tariffs had decreased the supply of subject imports; two of three responding U.S. producers and 13 of 17 responding importers reported that section 301 tariffs had increased the supply of imports from nonsubject sources. *Id.*

<sup>116</sup> CR/PR at Table II-4. Two of three responding U.S. producers reported that section 301 tariffs had not changed prices, and 15 of 19 responding importers reported that they had increased prices. Two of three responding U.S. producers and seven of 16 purchasers reported that section 301 tariffs had not changed raw material costs. *Id.*

<sup>117</sup> CR/PR at V-5; *see e.g.*, Petitioner’s Posthearing Br. at Exhs. 10, 12, and 13 (examples of agreements with “do not call” provisions).

<sup>118</sup> CR/PR at I-10-13.

### C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”<sup>119</sup>

The volume of subject imports by quantity fluctuated over the POI but decreased overall, initially increasing from \*\*\* gross in 2017 to \*\*\* gross in 2018 and then declining to \*\*\* gross in 2019, the lowest level of the POI.<sup>120 121</sup> Subject import volumes declined less than apparent U.S. consumption, resulting in a \*\*\* percentage point increase, by quantity, in market share for subject imports over the POI. Subject imports’ market share by quantity increased from \*\*\* percent in 2017 to \*\*\* percent in 2018, but then declined to \*\*\* percent in 2019.<sup>122</sup>

We find that the volume of subject imports was significant in absolute terms and relative to apparent consumption in the United States during the POI. For the reasons discussed below, however, we do not find that this volume of subject imports had either significant price effects or a significant adverse impact on the domestic industry.

### D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the subject imports, the Commission shall consider whether

(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and

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<sup>119</sup> 19 U.S.C. § 1677(7)(C)(i).

<sup>120</sup> CR/PR at Table IV-5. By value, subject import volumes fluctuated but increased overall, initially increasing from \$\*\*\* in 2017 to \$\*\*\* in 2018 before declining to \$\*\*\* in 2019. *Id.*

<sup>121</sup> Petitioner argues that declines in subject import volumes in 2019 resulted from the filing of the petitions on September 25, 2019 and should be accorded reduced weight. Petitioner’s Prehearing Brief at 27-30; *see also* 19 U.S.C. § 1677(7)(I). We find, however, that the declines in subject import volumes in 2019 did not result from the filing of the petitions. Monthly subject import volumes by quantity in 2019 were lower than equivalent levels in 2018 each month beginning in February 2019, seven months before the petitions were filed. CR/PR at Table IV-3. Additionally, the sharpest declines in monthly subject import volumes began between July and August 2019, which again preceded the filing of the petitions but followed three months after section 301 tariffs had increased to 25 percent. *Id.* Given the persistently lower monthly import volumes and sharp declines that preceded the filing of the petitions, we decline to accord less weight to 2019 subject import volumes pursuant to the post-petition effects provision.

<sup>122</sup> CR/PR at IV-5. By value, subject import market share followed similar trends and fluctuated over the POI but increased overall. It increased from \*\*\* percent in 2017 to \*\*\* percent in 2018 before declining to \*\*\* percent in 2019, a higher level than in 2017. *Id.*

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.<sup>123</sup>

As stated above, there is a moderate-to-high degree of substitutability between subject imports and the domestically produced product when made to the same shape, size, and end-use, and price is but one of several important factors in purchasing decisions, along with factors such as quality and availability.

In the final phase of this investigation, the Commission requested that U.S. producers and importers provide quarterly data for the total quantity and free on board value for eight glass container products shipped to unrelated U.S. customers between January 2017 and December 2019.<sup>124</sup> Four U.S. producers and 15 importers provided usable pricing data on sales of the requested products, although not all firms reported pricing for all products or for all quarters.<sup>125</sup> The pricing data accounted for approximately \*\*\* percent of domestic producers' commercial shipments and \*\*\* percent of U.S. importers' commercial shipments of subject merchandise.<sup>126</sup> While the coverage is lower for subject import shipments than for those of the

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<sup>123</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>124</sup> The pricing products were: **Product 1.**—750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed; **Product 2.**—750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed; **Product 3.**—750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed; **Product 4.**—12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed; **Product 5.**—12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed; **Product 6.**—12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed; **Product 7.**—16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style; **Product 8.**—32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style. CR/PR at V-7.

<sup>125</sup> CR/PR at V-7.

<sup>126</sup> CR/PR at V-7. Petitioner argues that the record demonstrates that subject imports undersell the domestic like product based on an analysis of AUV data drawn from importer questionnaire responses. Petitioner's Prehearing Br. at 45-46 & Exh. 27 (citing Tables IV-5-10 of the Prehearing Staff Report containing U.S. shipment data by end-use container type based on questionnaire responses). In this analysis, Petitioner attempts to control for product mix issues by removing beer bottles from the calculation of AUVs for U.S. shipments of subject imports and domestic product, and argues that this analysis shows that subject imports "undersold" domestic producers' prices in each year of the POI. We do not find Petitioner's analysis persuasive, nor more probative than our analysis based on the pricing product data. Petitioner's analysis only accounts for one variation that may affect product pricing, end-use container type (and even then only for one type of container, beer bottles). AUVs do not account



domestic product, glass containers are available in a wide range of sizes and styles such that no individual pricing product would necessarily allow broad coverage, as acknowledged by the Petitioner.<sup>127</sup>

The pricing data show that subject imports oversold the domestic like product in 46 instances of 59 available quarterly price comparisons (involving \*\*\* gross) and at overselling margins ranging from 1.1 percent to 123.4 percent.<sup>128</sup> Subject imports

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for other differences that affect whether pricing comparisons are apples-to-apples, for example, differences in product weight or packaging, which Petitioner itself acknowledged in the preliminary phase of this investigation. Petitioner's Postconference Br., Resp. to Staff Questions at 17-19. Because the Commission's pricing data compare products with similar size, design, and product characteristics, we find that they provide the most accurate apples-to-apples comparisons between subject imports and domestic products on the record of this investigation. We further note, however, that even were we to consider AUVs in measuring price effects, the AUVs for U.S. shipments to end-use product manufacturers, which at least account for product mix issues attributable to end-use container type, are consistent with our pricing data and show that subject imports' AUVs for each end-use container type were above those of the domestic industry's shipments for each end-use container type. CR/PR at Tables F-1 to F-7.

<sup>127</sup> Petitioner's Prehearing Br. at 47 (acknowledging that glass containers encompass a "continuum of products"). Petitioner also argues that the pricing product definitions are "unrepresentative" and attributes such flaws to products proposed by respondent parties but for which these parties did not report pricing data. *Id.* Products 1-3, for which there are subject import data, and products 4-6, for which no U.S. importers reported data, are derived from those product definitions proposed in the Petitions and used during the preliminary phase, with additional product characteristics that have been suggested by both Petitioner and respondents in their comments on draft questionnaires. *See* Petitions, Vol. I at 21; *see also* Preliminary Determinations at 29 n.121 (product 1 being a 750 ml, claret style (Bordeaux) wine bottle, green color, and product 2 being a 12 oz., long neck style beverage bottle with flint (clear) color); *see also* Petitioner's Comments on Questionnaires, EDIS Doc. 699913, at 2 and TricorBraun Comments on Questionnaires, EDIS Doc. 699775 at 5-6. While \*\*\*, other U.S. importers reported pricing data for each of these products. CR/PR at Table V-12. Finally, we note that the Petitioner's comments on draft questionnaires provided only broad suggestions for pricing product definitions, and Petitioner has otherwise not proposed alternative product definitions at any point in this investigation. Petitioner's Comments on Questionnaires, EDIS Doc. 699913, at 2 (suggesting only that product definitions account for weight and packaging without further specification or suggesting any alternative product definitions).

<sup>128</sup> CR/PR at Table V-12. As noted, there are no quarterly comparisons for products 4-6, which are types of long neck beer/beverage bottles, because no U.S. importers reported pricing data for these products, which is consistent with the low amount of reported U.S. shipments of subject imports to beer manufacturers. CR/PR at Table F-1. Berlin Packaging suggests that this is because these products are specific to the size/design of beer bottles for large firms and excludes beer containers of other sizes/decoration that are more common to small- and medium-sized beer producers that are serviced by subject imports. It provides examples of "bespoke" beer bottles, as opposed to long-neck beer bottles in the pricing product definitions, that are supplied by subject imports. Berlin Packaging Posthearing Br., Resp. to Comm. Questions at 1 & Exh. 1.

undersold the domestic like product in the remaining 13 of 59 quarterly comparisons<sup>129</sup> (involving \*\*\* gross) at underselling margins ranging from 2.0 percent to 32.5 percent.<sup>130 131</sup>

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Petitioner requests that the Commission disregard all pricing data for product 3, claiming that its weight and packaging descriptions are too broad. These descriptions, however, are the same as for products 1 and 2, which Petitioner does not request be disregarded. Petitioner's Midhearing Br. at 18. Further, while Petitioner has advocated that the Commission account for product weight and packaging in pricing product definitions, neither it nor other parties have proposed more precise or alternative parameters for these characteristics during this investigation. Accordingly, because the parameters for product 3's weight and packaging provide the only such available data on record, we incorporate price comparisons for product 3 into our analysis.

<sup>129</sup> Petitioner requests that the Commission disregard quarterly price comparisons in the final quarter, October-December 2019, as being distorted by post-petition effects. Petitioner's Prehearing Br. at 35. Pricing data for subject imports in this quarter, however, indicate a mix of price increases, decreases, and steady prices, with no discernible pricing effects evident from the filing of petitions. See, e.g., CR/PR at Figure V-2 (showing a quarterly decrease for subject imports); Figure V-3 (showing a steady price for subject imports); Figure V-4 (showing a quarterly increase for subject imports). Accordingly, we decline to disregard these pricing data on the basis of post-petition effects.

<sup>130</sup> All but one instance of underselling occurred with respect to pricing product 2, a type of wine container. Overselling occurred in all but one instance for pricing products 1 and 3, also types of wine containers. Based on reported pricing data, pricing product 1 comprised the largest quantity reported by domestic producers and pricing product 3 comprised the largest quantity of product reported by importers of subject merchandise. CR/PR at Tables V-3-5.

<sup>131</sup> CR/PR at Table V-12. Petitioner proposes various revisions to pricing data reported by individual U.S. importers. Petitioner's Prehearing Br. at 48-56 & Exhs. 28-29. We decline to make these proposed revisions. In some instances, parties have either revised data or provided missing data that had been highlighted by Petitioner. See, e.g., CR/PR at Table V-3, note (indicating that \*\*\*); CR/PR at Table V-9, note (indicating that \*\*\* revised its pricing data for product 7). With respect to \*\*\*, that this firm reported pricing data \*\*\* is not a basis alone to disregard these data, and Petitioner regardless appears to have accepted this firm's pricing data after revisions. CR/PR at Table V-4, note; see also Petitioner's Posthearing Br. at 6-7. We have further retained pricing data from importer \*\*\*; while Petitioner notes that its pricing data are different from the firm's overall AUVs, the firm reported importing a large mix of glass container products over the POI such that differences in individual product prices are not unexpected. U.S. Importer Questionnaire, EDIS Doc. \*\*\*, at II-10. We have also retained pricing data from importer \*\*\* for products 7 and 8; while Petitioner notes that this firm's pricing data are inclusive of inland U.S. freight costs, the firm reported that \*\*\*. CR/PR at Table V-9 & V-10, note. Regardless, its reported freight costs were significantly less than the margins of overselling for these products, such that inclusion of these data do not change the overselling of subject imports for these products. Compare U.S. Importer Questionnaire, EDIS Doc. \*\*\*, at III-2e (reporting inland freight costs between \*\*\* of import values) with CR/PR at Table V-12. Moreover, as demonstrated by TricorBraun, excluding \*\*\* data does not have any material impact on the overall pricing data comparisons. See TricorBraun Final Comments at 13-14.

Finally, Petitioner requests that the Commission reduce importers' reported "case pack premiums" from reported prices for products 7 and 8, which are products that do not specify packaging type. Petitioner's Prehearing Br. at 50. Such an adjustment, however, would be distortive without a

Of 11 U.S. purchasers<sup>132</sup> that responded to the lost sales/lost revenue survey, seven reported purchasing subject imports instead of the domestic like product, with five of these firms reporting that subject imports were lower priced, and only two of these firms indicated that price was a primary reason for their purchases.<sup>133</sup> U.S. purchasers confirmed lost sales totaled only \*\*\* gross over the POI.<sup>134</sup> Given the prevalent overselling in pricing data, purchasers primarily indicating non-price reasons for subject import purchases, and the paucity of confirmed lost sales, we find that underselling by subject imports was not significant.

We have also considered price trends for the domestic like product and subject imports. During the POI, prices increased for three of the domestically produced pricing products for which there are price comparisons with subject imports (and an additional one product for which there are no subject import price comparisons) and decreased for

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corresponding adjustment to domestic producers' pricing data for any case pack premiums. \*\*\*, those domestic producers who submitted pricing data for these products, reported a mix of bulk and case packaging for their glass containers used by food manufacturers (*e.g.*, the type of container included in these pricing products), but the record does not otherwise specify what portion of those shipments for products 7 and 8 may include case packaging. U.S. Producer Questionnaires, EDIS Docs. \*\*\*, at IV-11. As such, we decline to make this proposed adjustment to importer pricing data for these products.

<sup>132</sup> Petitioner provided correspondence between domestic producers and various purchasers, and it argues that the Commission should rely on this correspondence in finding additional lost sales and lost revenues. However, numerous of these instances are outside the POI for this investigation. *See, e.g.*, Petitioner's Prehearing Br. at Exh. 18 (\*\*\*), Exh. 19 (\*\*\*), and Exh. 20 (\*\*\*). Other instances reference only \*\*\*, and do not specify whether domestic producers are competing with subject imports. *Id.* at Exh. 21; *see also* U.S. Importer Questionnaire response, EDIS Doc. \*\*\*. In other instances, correspondence does not specifically mention subject imports. *See* Petitioner's Prehearing Br. at Exh. 24 (\*\*\*). According to respondents, several of the instances covered in the correspondence may reflect a "common negotiating tactic" and do not represent actual prices. *See* TricorBraun Midhearing Brief at 48; Hearing Tr. at 97-98 (Dogan). We find that the limited instances of specific references to subject imports in this correspondence do not outweigh the evidence on the record of this investigation, including purchaser responses and pricing product data, which do not show that subject imports significantly undersold the domestic producers' prices or that subject imports were taking sales from the domestic industry based on lower prices.

<sup>133</sup> CR/PR at Table V-14. Purchasers reported numerous non-price reasons for subject import purchases including \*\*\*, \*\*\*, \*\*\*, \*\*\*, and \*\*\*. Indeed, even \*\*\*, which reported that its subject import purchases were primarily because of price, also reported non-price reasons for these purchases, including that \*\*\*. *Id.*

<sup>134</sup> CR/PR at Table V-14. Even considering those confirmed lost sales reported in the preliminary phase but not in the final phase, the total of lost sales in both the preliminary and final phase is only \*\*\* gross. *Calculated from* CR/PR at Table V-14 *and* Confidential Report, Memorandum INV-RR-113 (Nov. 4, 2019) at Table V-10 (including lost sales reported by \*\*\*). These confirmed lost sales reported in the final phase constituted \*\*\* percent of apparent U.S. consumption over the POI, and confirmed lost sales reported in both the preliminary and final phase total only \*\*\* percent of apparent U.S. consumption over the POI. *Calculated from* CR/PR at Table V-14 *and* Table C-1.

two products for which there are price comparisons with subject imports (and an additional two products for which there are no subject import price comparisons).<sup>135</sup> Subject import prices increased for four of the pricing products and decreased for one.<sup>136</sup><sup>137</sup> Even for those domestic products for which prices decreased, subject imports either largely oversold the domestic product (products \*\*\* and \*\*\*) or there were no U.S. import data (products \*\*\* and

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<sup>135</sup> CR/PR at Table V-11 & Table V-8 (pricing data for product 6 are listed incorrectly in Table V-11; domestic prices for this product decreased, as indicated in Table V-8). Petitioner argues that the Commission should focus its price depression analysis only on selected pricing data from certain firms, specifically \*\*\*'s pricing data for products 2 and 3 (a pricing product Petitioner argues elsewhere should be disregarded entirely) and \*\*\*'s pricing data for products 1 and 2. Petitioner's Prehearing Br. 36-38. The statute, however, directs the Commission to examine the domestic industry as a whole, and Petitioner provides no reason why other U.S. firms' pricing data are either incorrect or inaccurate. Accordingly, we decline to limit our analysis in the manner proposed by Petitioner.

Petitioner also argues that pricing data should be adjusted to reflect inflation, which it argues would show that domestic prices decreased over the POI. Petitioner's Prehearing Br. at 33-34. Its proposed rate of inflation (the Federal Reserve's Producer Price Index for "Total Manufacturing Industries") is a mix of different industries in which not all individual industries experience equal inflationary rates, such that the alleged failure of one industry to match this overall rate is not necessarily indicative of price decreases. *Id.* at Exh. 13. More importantly, the pricing data reflect contemporaneous quarterly prices that would already encompass any inflation over this period; this is supported by \*\*\* reporting that numerous of their contracts include price adjustments for inflation on an annual basis. CR/PR at V-4-5. Furthermore, any such inflation adjustment would be distortive, especially when applied only to domestic prices as suggested by Petitioner. Petitioner's Prehearing Br. at Exh. 14. Regardless, and notwithstanding its raising this issue, Petitioner's counsel conceded that the pricing data need not be adjusted for inflation. Hearing Tr. at 27 (Pickard).

<sup>136</sup> CR/PR at Table V-11. Prices increased for domestically produced pricing products 2 (\*\*\*) percent), 5 (\*\*\*) percent), 7 (\*\*\*) percent), and 8 (\*\*\*) percent); prices decreased for domestically produced pricing products 1 (\*\*\*) percent), 3 (\*\*\*) percent), 4 (\*\*\*) percent), and product 6 (\*\*\*) percent) (*calculated from* CR/PR at Table V-8). Prices for subject imports increased for pricing products 2 (\*\*\*) percent), 3 (\*\*\*) percent), 7 (\*\*\*) percent), 8 (\*\*\*) percent); prices decreased for product 1 (\*\*\*) percent). *Id.*

<sup>137</sup> Petitioner argues that domestic price declines for products 1 and 3 (wine bottles) are indicative of price depression and suppression given the increasing demand for wine over the POI. Petitioner's Posthearing Br., Resp to Comm. Questions at 4-6. Pricing data for products 1 and 3, however, indicate that subject imports oversold the domestic product in all but one quarter for these products, and reported subject import quantities for product 1 were far less than those quantities reported by domestic producers. CR/PR at Tables V-3 and V-5. Further, both domestic and subject imports prices had their largest price increases for product 2, another wine bottle product, notwithstanding that subject imports undersold the domestic product in these comparisons. CR/PR at Table V-4. Accordingly, these data do not support claims that subject imports have depressed domestic prices for wine containers to a significant degree.

\*\*\*).<sup>138</sup> Domestic price increases were actually greatest for the pricing product with all but one instance of subject import underselling, product \*\*\*.<sup>139</sup> No responding purchaser reported that domestic producers' had reduced prices over the POI.<sup>140</sup> Given this evidence, we find that subject imports did not depress domestic producers' prices to a significant degree.

We have also considered whether subject imports prevented increases in prices of the domestic like product, which otherwise would have occurred to a significant degree. As noted above, apparent U.S. consumption, by quantity, experienced a steep decline over the POI,<sup>141</sup> and the Petitioner acknowledges that such aggregate declines in demand would likely result in

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<sup>138</sup> CR/PR at Table V-11 and Table V-8. Petitioner argues that glass container prices are "linked" between product types, such that an oversupply of allegedly low-priced subject imports in food containers and wine containers resulted in domestic price decreases in other product categories. Petitioner's Prehearing Br. at 31; Petitioner's Midhearing Br. at 10, 13-14. Petitioner calculates the volume of subject imports (*i.e.*, what it considers the "oversupply") from 10-digit statistical reporting numbers in HTS data, but as noted previously, these subheadings are not specific to end-use container type and contain a mix of products. U.S. shipment data for end-use container types (based on questionnaire responses) indicate that subject import shipments declined and had a smaller and declining market share (by quantity and value) over the POI relative to the domestic industry for shipments to wine manufacturers and spirits manufacturers. CR/PR at Tables F-5 and F-2. Additionally, pricing data for products 1-3 (wine containers) and products 7-8 (food containers) indicate that subject imports predominantly oversold the domestic product. CR/PR at Table V-12. Accordingly, the record does not support Petitioner's assertion either of a surge of subject import volumes or of subject import underselling in these product categories.

<sup>139</sup> CR/PR at Tables V-11 and V-12. We also note that U.S. shipment data to specific end-use product manufacturers further indicate that domestic producers' AUVs increased over the POI. Domestic producers' AUVs were higher in 2019 than in 2017 for U.S. shipments to beer manufacturers, wine manufacturers, spirits manufacturers, other beverage manufactures, food manufacturers, and other end users. CR/PR at Tables F-1-F-6. These data also demonstrate that the AUVs of U.S. shipments of subject imports to each type of end-use product manufacturer were higher than those of the domestic producers' shipments to these manufacturers. *Id.*

<sup>140</sup> CR/PR at V-27.

<sup>141</sup> CR/PR at Table IV-5. By value, apparent U.S. consumption fluctuated but was lower in 2019 than in 2017. *Id.*

downward pricing pressures.<sup>142</sup> Nonetheless, pricing data<sup>143</sup> indicate that domestic prices increased for three of the five pricing products for which there are price comparisons with subject imports over the POI.<sup>144</sup> The domestic industry's overall COGS was lower in 2019 than in 2017, but this decrease was less than its decreases in net sales, which resulted in the domestic industry's COGS to net sales ratio increasing from 83.9 percent in 2017 to 87.8 percent in 2018 and 89.6 percent in 2019.<sup>145</sup>

The domestic industry's unit raw material costs increased from \$4.57 per gross in 2017 to \$4.82 per gross in 2018 and \$5.08 per gross in 2019, and the industry's total unit COGS increased from \$20.55 per gross in 2017 to \$22.11 per gross in 2018 and \$23.56 per gross in 2019, or by \$3.01 per gross over the POI; the domestic industry's unit net sales value increased from \$24.49 per gross in 2017 to \$25.17 per gross in 2018 and \$26.31 per gross in 2019, or by \$1.82 per gross over the POI.<sup>146</sup> While the unit COGS increased more than unit net sales values, the increase in COGS primarily resulted from increases in other factory costs, and these increases in per-unit other factory costs, in turn, resulted primarily from decreased sales volumes.<sup>147</sup> As discussed further below, these declining sales volumes resulted from declining apparent U.S. consumption over the POI, and we find that

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<sup>142</sup> Hearing Tr. at 14-15 (Pickard) (stating "...yes, as demand decreases {} over the period of investigation, you would imagine that that puts downward pressure of U.S. prices. That's absolutely true."). We note that the decrease in the domestic industry's shipments by quantity over the POI (\*\* gross between 2017 and 2019) was greater than subject import quantities in any given year (the highest volume of subject imports was \*\*\* gross in 2018), yet Petitioner attributes domestic producers' inability to increase prices to subject imports. CR/PR at Table C-1; Petitioner's Prehearing Br. at 32. Further, the total volume of nonsubject imports throughout the POI, and the increase in market share of nonsubject imports during the POI, of \*\*\* percentage points, was also far larger than subject imports' total volume and \*\*\* percentage point increase in market share. CR/PR at Table C-1.

<sup>143</sup> Petitioner also cites to examples of correspondence between domestic producers and purchasers as evidence that domestic producers forewent price increases over the POI. Petitioner's Prehearing Br. at 39-41. As previously discussed, however, numerous of these communications were outside the POI or do not reference subject imports. *Id.* at Exhs. 18, 19, 20 and 21. Additionally, no purchaser reported that domestic producers had reduced prices to compete with lower-priced subject imports over the POI. CR/PR at V-27. Given these purchaser responses as well as price increases in the pricing data, we do not find the correspondence provided by Petitioner are more persuasive record evidence.

<sup>144</sup> CR/PR at Table V-11 and Table V-8. For pricing products without subject import data, domestic prices increased for one product and decreased for two products. *Id.*

<sup>145</sup> CR/PR at Table VI-1.

<sup>146</sup> CR/PR at Table VI-1.

<sup>147</sup> CR/PR at VI-13 n.8; *Calculated from* CR/PR at Table VI-1 (had other factory costs remained at 2017 levels over the POI, the per-unit other factory cost would have still increased by \$1.23 due to the decrease in the net sales quantity).

further price increases (beyond those already observed during the POI) would not be expected in a declining market, as acknowledged by Petitioner.<sup>148</sup>

Moreover, the increase in COGS to net sales does not appear correlated with subject import pricing given the prevalent overselling by subject imports in the pricing data, as well as continued increases in the domestic industry's COGS to net sales ratio even as subject import volumes declined in 2019; indeed, domestic producers' increases in unit net sales values indicate that domestic producers were able to pass some increased costs to customers through increased prices.<sup>149</sup>

Given the above, as well as predominant overselling by subject imports, we find that subject imports did not prevent price increases for the domestic like product, which otherwise would have occurred, to a significant degree.

In summary, we find that subject imports did not have significant price effects on the domestic like product during the POI.

#### **E. Impact of the Subject Imports**

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."<sup>150</sup> These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single

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<sup>148</sup> Hearing Tr. at 14-15 (Pickard).

<sup>149</sup> Petitioner argues that subject import prices forced domestic producers to enter into long-term contracts at low prices, and that these contracts subsequently prevented price increases. Petitioner's Midhearing Br. at 38. As noted above, pricing data contradict this argument, as subject imports predominantly oversold the domestic product. Further, the record does not support the argument that long-term contracts in and of themselves prevented price increases, given that (i) four of five responding U.S. producers reported that long-term contracts allow for changes in prices to reflect increasing costs, and (ii) the pricing data exhibit price increases for various domestic products. CR/PR at V-4 and Tables V-11 and V-8.

<sup>150</sup> 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, 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 also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>151</sup>

We find that subject imports did not have a significant impact on the domestic industry during the POI, as explained below.

The domestic industry’s market share by quantity declined between 2017 and 2019, decreasing from \*\*\* percent in 2017 to \*\*\* percent in 2018 before increasing slightly to \*\*\* percent in 2019.<sup>152</sup> As noted previously, apparent U.S. consumption declined over the POI, and domestic producers reported several plant closings and furnace shutdowns consistent with this decline.<sup>153</sup> Additionally, the industry’s capacity<sup>154</sup> and production<sup>155</sup> decreased over the POI, and its capacity utilization fluctuated but was lower in 2019 than in 2017.<sup>156</sup> The domestic industry’s U.S. shipments<sup>157</sup> by quantity decreased while its inventories increased.<sup>158</sup>

Most employment-related indicators for the domestic industry declined over the POI. Specifically, the number of production-related workers (“PRWs”), total hours worked, wages

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<sup>151</sup> 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

<sup>152</sup> CR/PR at Table IV-5. By value, the domestic industry’s market share declined from \*\*\* percent in 2017 to \*\*\* percent in 2018 and 2019. *Id.*

<sup>153</sup> CR/PR at Table III-3. \*\*\* and \*\*\* reported plant closing; \*\*\*, \*\*\*, \*\*\*, and \*\*\* also reported furnace shutdowns or production curtailments either to reduce production or because of furnace repairs. Three firms, \*\*\*, \*\*\*, and \*\*\*, also reported expanding capacity for furnaces at various facilities. *Id.*

<sup>154</sup> The domestic industry’s capacity declined each year of the POI, from 219.6 million gross in 2017 to 205.1 million gross in 2018 and 189.6 million gross in 2019. CR/PR at Table III-4.

<sup>155</sup> The domestic industry’s production was 184.4 million gross in 2017, 172.4 million gross in 2018, and 157.4 million gross in 2019. CR/PR at Table III-4.

<sup>156</sup> The domestic industry’s capacity utilization was 84.0 percent in 2017, 84.1 percent in 2018, and 83.0 percent in 2019. CR/PR at Table III-4.

<sup>157</sup> The domestic industry’s U.S. shipments by quantity decreased from \*\*\* gross in 2017 to \*\*\* gross in 2018 and \*\*\* gross in 2019. By value as well, the industry’s U.S. shipments decreased each year of the POI, from \$\*\*\* in 2017 to \$\*\*\* in 2018 and \$\*\*\* in 2019. The domestic industry’s export shipments also decreased, by quantity and value, each year of the POI. By quantity, export shipments were \*\*\* gross in 2017, \*\*\* in 2018, and \*\*\* gross in 2019. By value, they were \$\*\*\* in 2017, \$\*\*\* in 2018, and \$\*\*\* in 2019. CR/PR at Table III-6.

<sup>158</sup> The domestic industry’s end-of-period inventories by quantity increased from \*\*\* gross in 2017 to \*\*\* gross in 2018 and \*\*\* gross in 2019. Given the decreasing shipments and productions over this time, domestic producer’s ratio of inventories to U.S. production and shipments also increased each year of the POI. CR/PR at Table III-7. Domestic producers have reported maintaining inventories on behalf of customers that require just-in-time delivery of glass containers. CR/PR at II-2; *see also* Conference Tr. at 85 (Paulet).



paid, and productivity decreased each year; hourly wages fluctuated but were higher in 2019 than in 2017.<sup>159</sup>

The domestic industry's financial indicators also generally declined over the POI. Net sales by value decreased each year of the POI.<sup>160</sup> The domestic industry's operating income, net income, and gross profit declined over the POI; gross profit and operating income remained positive while \*\*\*.<sup>161</sup> Operating income as a share of net sales also declined over the POI.<sup>162</sup> Domestic producers' capital expenditures fluctuated but increased between 2017 and 2019, while research and development expenses decreased each year.<sup>163</sup> Domestic producers' responses regarding negative effects on investment and on growth and development due to subject imports were mixed, with \*\*\* firms reporting negative effects and \*\*\* firms not reporting such effects.<sup>164</sup>

While the domestic industry experienced declines in shipments and production, which resulted in declining financial performance over the POI, the record does not support the conclusion that these declines are attributable to subject imports. There is a lack of record evidence showing a market share shift from domestic producers to subject imports.<sup>165</sup> While the domestic industry lost market share (\*\*\* percentage points) over the POI, subject imports

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<sup>159</sup> The domestic industry's PRWs decreased from 11,870 in 2017 to 11,590 in 2018 and 10,849 in 2019. Total hours worked declined from 24.0 million hours in 2017 to 23.7 million hours in 2018 and 22.1 million hours in 2019. Wages paid decreased from \$1.2 billion in 2017 to \$1.14 billion in 2018 and \$1.13 billion in 2019. Productivity declined from 7.7 gross per hour in 2017 to 7.3 gross in 2018 and 7.1 gross in 2019. Hourly wages fluctuated, initially decreasing from \$48.63 in 2017 to \$48.32 in 2018 before increasing to \$50.99 in 2019. CR/PR at Table III-9.

<sup>160</sup> The domestic industry's net sales by value declined from \$4.4 billion in 2017 to \$4.2 billion in 2018 and \$4.1 billion in 2019. CR/PR at Table VI-1.

<sup>161</sup> The domestic industry's gross profit was \$716.2 million in 2017, \$516.3 million in 2018, and \$427.4 million in 2019. Its operating income was \$343.6 million in 2017, \$129.9 million in 2018, and \$61.3 million in 2019. Its net income was \$\*\*\* in 2017 and \*\*\* in 2018 and \$\*\*\* in 2019. CR/PR at Table VI-1.

<sup>162</sup> The domestic industry's operating income as a share of net sales decreased from 7.7 percent in 2017 to 3.1 percent in 2018 and 1.5 percent in 2019. CR/PR Table VI-1.

<sup>163</sup> Capital expenditures initially increased from \$299.6 million in 2017 to \$396.4 million in 2018 before declining to \$381.9 million in 2019. Research and development expenses declined from \$\*\*\* in 2017 to \$\*\*\* in 2018 and \$\*\*\* in 2019. CR/PR at Table VI-5.

<sup>164</sup> CR/PR at Table VI-7. \*\*\* of \*\*\* responding U.S. producers reported negative effects on investments as a result of subject imports, including cancelled or postponed projects, denial of investment proposal, reductions in capital investments, or negatively impacted returns on investments. \*\*\* of \*\*\* responding U.S. producers also reported negative effects on growth and development, including lower credit rating, problems issuing stocks/bonds, and ability to service debt. *Id.*

<sup>165</sup> Compare CR/PR at Table F-1 (U.S. shipments to beer manufacturers) with Table C-1 (total U.S. shipments).

market share remained essentially flat, gaining only \*\*\* percentage points market share over the POI.<sup>166</sup> Moreover, the record does not show that subject imports gained sales because they were priced lower than the domestic product. As discussed above, subject imports did not significantly undersell the domestic like product and did not have significant adverse price effects on the domestic industry's prices during the POI. In addition, there appears to be a lack of correlation between the performance of the domestic industry and subject imports. As subject imports declined in 2019, domestic producers' production and shipments continued to decline and by greater amounts than from the prior year.<sup>167</sup> Indeed, the domestic industry's worst financial performance was experienced in 2019, when subject import volumes were at their lowest point.<sup>168</sup>

We observe that the decline in domestic producers' output indicators and consequent decline in financial indicators are consistent with the decline in apparent U.S. consumption of glass containers overall, and in particular for beer bottles, over the POI. Approximately \*\*\* percent of the domestic industry's decline in shipments over the POI were for shipments to beer manufacturers, where subject imports had a minimal and declining presence over the POI.<sup>169</sup> <sup>170</sup> The domestic industry's declines in production capacity over the POI (\*\*\*) gross in

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<sup>166</sup> CR/PR at Table C-1. Nonsubject imports on the other hand gained \*\*\* percentage points market share over the POI. CR/PR at Table C-1. The domestic industry's decline in shipments primarily stemmed from the declining shipments to beer manufacturers. Subject and nonsubject imports had a much smaller presence in such shipments, and domestic producers were accordingly more impacted by these declines, which is reflected in the declining market share of domestic producers. *Compare* CR/PR at Table F-1 (U.S. shipments to beer manufacturers) *with* Table C-1 (total U.S. shipments).

<sup>167</sup> CR/PR at Table C-1.

<sup>168</sup> CR/PR at Table C-1.

<sup>169</sup> *Calculated from* CR/PR at Table F-1 *and* Table C-1. By quantity and value, the domestic industry accounted for the vast majority of reported U.S. shipments to beer manufacturers over the POI. By quantity, they increased from \*\*\* percent in 2017 to \*\*\* percent in 2018 and \*\*\* percent in 2019; by value, they also increased from \*\*\* percent in 2017 to \*\*\* percent in 2018 and \*\*\* percent in 2019. In contrast, subject imports accounted for a minimal and declining portion of reported U.S. shipments. By quantity, they were \*\*\* percent in 2017 and 2018 before declining to \*\*\* percent in 2019; by value, they declined from \*\*\* percent in 2017 and \*\*\* percent in 2018 and 2019. *Id.* While subject import shipments are understated in these data, the domestic industry's reported U.S. shipments to beer manufacturers far exceed even the total of all subject imports under adjusted HTS data, and Petitioner acknowledges that subject imports were concentrated in other product segments such as wine containers over the POI. *Id.*; *see also* Petitioner's Prehearing Br. at 78-81.

<sup>170</sup> Petitioner cites to lost sales reported by \*\*\* as evidence that subject imports have also taken sales of beer containers from the domestic industry. This firm, however, reported \*\*\* over the POI than of subject imports, and it indicated that subject import purchases were \*\*\*. U.S. Purchaser Questionnaire, EDIS Doc. \*\*\*, at II-1 & II-2. Additionally, it is not clear whether this firm's subject import

total) far exceeded subject import volumes in any year (*e.g.*, \*\*\* gross in 2018, the highest level over the POI).<sup>171</sup> Respondents have provided contemporaneous accounts of domestic plant closings that specifically reference declining demand for beer in explaining some closings.<sup>172</sup> Even in other end-use container types, domestic producers' shipments either (i) declined with apparent U.S. consumption while maintaining steady or increasing market share,<sup>173</sup> or (ii) lost market share to nonsubject imports rather than subject imports.<sup>174</sup>

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purchases were beer bottles or other products that it reported purchasing and as having increased demand (\*\*\*). *Id.* at III-1 & III-5.

<sup>171</sup> *Calculated from CR/PR at Table C-1.*

<sup>172</sup> Berlin Packaging Prehearing Br. at Exhs. 6 & 8; TricorBraun Prehearing Br. at Exhs. 3-4. Examples provided include (i) with respect to Owens' closure of an Atlanta production facility, an article from Glass International indicating that this was due to "the continued decline of the US beer market;" and (ii) with respect to Owens' closure of a furnace in Waco, Texas, an article from KWTX indicating that this was due to "continued softer demand in the U.S. across the beer category." *Id.* While we acknowledge that domestic producers' have not reported that all closures were attributable to declining beer demand, this record evidence supports that beer demand contributed to such closures.

In addressing other plant closures, respondents provide the following public source information: (i) with respect to Ardagh's closure of a Lincoln plant, statements from a plant employee indicating that an EPA requirement to rebuild the plant's tank influenced the decision to close the facility; (ii) with respect to Ardagh's closure of a furnace in Ruston, Louisiana, an article from The Advocate indicating this was because of "a growing plastics market that is cutting into" demand for products made at the facility. *Id.* Berlin Packaging also provides public sources indicating that certain closed facilities made different container types from those reported in questionnaire responses, and specifically that these facilities did produce beer bottles. Berlin Packaging Prehearing Brief at Exh. 6 (State Journal-Register article indicating that Ardagh's Lincoln plant produced "glass packaging for beers, liquors, and other beverages and food," not simply the \*\*\* reported in Ardagh's questionnaire response); *Id.* at Exh. 8 (EPA application indicating that Owen's furnace in Portland produced amber beer bottles, not just the \*\*\* reported in the firm's questionnaire response).

<sup>173</sup> For U.S. shipments to wine manufacturers, other beverage manufacturers, and other manufacturers, apparent U.S. consumption declined and domestic producers maintained steady or increasing market share. For wine manufacturers, domestic producers' share by quantity increased from \*\*\* percent in 2017 to \*\*\* percent in 2019, and by value increased from \*\*\* percent in 2017 to \*\*\* percent in 2019. CR/PR at Table F-2. For other beverage manufacturers, domestic producers' share of shipments by quantity increased from \*\*\* percent in 2017 to \*\*\* percent in 2019, and by value increased from \*\*\* percent in 2017 to \*\*\* percent in 2019. CR/PR at Table F-4. For other end users, the domestic industry's share of shipments by quantity was relatively steady, starting at \*\*\* percent in 2017 and declining slightly to \*\*\* percent in 2019; by value, the share decreased from \*\*\* 2017 percent to \*\*\* percent in 2019. CR/PR at Table F-6. While Petitioner points to these relative declines for the domestic industry's shipments to other end users as evidence of significant impact, this segment of shipments constituted the smallest portion of reported end-use manufacturer shipments and had lower apparent U.S. consumption in 2019 than in 2017. *Id.*

<sup>174</sup> For U.S. shipments to food manufacturers, domestic producers' share of reported shipments declined by both quantity and value, from \*\*\* percent in 2017 to \*\*\* percent in 2019 by quantity and

Petitioner characterizes shipments for wine and spirits containers as the “heart of the market,” and argues that subject import competition for these products alone supports an affirmative injury finding.<sup>175</sup> As an initial matter, Petitioner’s characterization of wine and spirits containers as the “heart” of the glass containers’ market is unsubstantiated, especially given that U.S. consumption of beer containers and food containers over the POI each were greater than consumption of either wine containers or spirits containers.<sup>176</sup> Regardless, U.S. shipment data indicate that the domestic industry’s market share for wine containers (by quantity or value) increased over the POI, while the share of subject imports decreased;<sup>177</sup> domestic producers’ share of spirits containers increased by value, and the decline in domestic

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from \*\*\* percent in 2017 to \*\*\* percent in 2019 by value. Subject imports’ share of reported shipments, however, also declined by quantity and value, from \*\*\* percent in 2017 to \*\*\* percent in 2019 by quantity and from \*\*\* percent in 2017 to \*\*\* percent in 2019 by value. In contrast, shares for nonsubject imports increased, from \*\*\* percent in 2017 to \*\*\* percent in 2019 by quantity and from \*\*\* percent in 2017 to \*\*\* percent in 2019 by value. CR/PR at Table F-5. For U.S. shipments to spirits manufacturers, domestic producers’ shipments increased by quantity and value; while their relative share of reported shipments decreased by quantity (although increased by value) from \*\*\* percent in 2017 to \*\*\* percent in 2019, nonsubject import shipments had the greatest increase in share, from \*\*\* percent in 2017 to \*\*\* percent in 2019. CR/PR at Table F-3. Additionally, subject imports shipments were entirely to small/medium spirits manufacturers, and domestic producers’ shipments to this group of firm sizes \*\*\* over the POI. CR/PR at Table G-3.

<sup>175</sup> Petitioner’s Prehearing Br. at 78-81.

<sup>176</sup> Compare CR/PR at Tables F-2 & F-3 (U.S. shipments of wine and spirits containers) with CR/PR at Tables F-1 & F-5 (U.S. shipments of beer and food containers). Nor does Petitioner advance a persuasive reason that wine containers and spirit containers collectively constitute the “heart” of the market.

Petitioner also cites to prior injury investigations, as well as other Commission proceedings, to argue that these prior investigations’ focus on certain market segments support an affirmative determination in this investigation. As reviewing courts have held, however, each Commission injury investigation “is *sui generis*, involving a unique combination and interaction of many economic variables,” that the Commission may reasonably reach different outcomes in cases with different circumstances, and that Commission proceedings involving “different statutory provisions” from injury investigations are of limited relevance. See, e.g., *Hitachi Metals Ltd. v. United States*, 949 F.3d 710, 718 (Fed. Cir. 2020). Regardless, Petitioner’s assertion that wine and spirits containers are the heart of the market, or that subject imports have caused injury in these product segments, is not supported by the record, as explained above.

<sup>177</sup> Petitioner further argues that the declining performance of U.S. producer \*\*\*, supports that subject imports caused injury in the wine market. This firm’s declining performance, however, stemmed primarily from \*\*\*, while its commercial shipments increased over the POI. See U.S. Producer Questionnaire, EDIS doc. ID \*\*\*, at III-9a; see also \*\*\*. Additionally, the firms’ increases in other factory costs also contributed to its declining performance, and these costs resulted from \*\*\*. CR/PR at VI-13 n.8. Accordingly, the record does not support that subject imports explain this firm’s declines over the POI.

producers' share by quantity appears to stem from an increase in nonsubject imports rather than subject imports.<sup>178</sup> Accordingly, even a focus on these products does not support that subject imports have significantly impacted the domestic industry.

In addition, in most end use container types, domestic producers' shipments were heavily concentrated to large product manufacturers, while subject import shipments were heavily concentrated to small/medium product manufacturers.<sup>179</sup> <sup>180</sup> As noted above, certain

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<sup>178</sup> CR/PR at Tables F-2 & F-3. For U.S. shipments to wine manufacturers, domestic producers' share (by quantity and value) declined between 2017-2018 while that of subject imports increased; nonetheless, domestic producers' shipments (by quantity and value) were relatively steady each year of the POI even as subject and nonsubject imports shipments significantly declined in 2019, which resulted in domestic producers' share increasing in 2019 to higher levels than in 2017. CR/PR at Table F-2. While we acknowledge that subject import shipments are understated in these data, we find these data provide the best evidence specific to these product types. As noted, HTS subheadings relied upon by Petitioner contain a mix of product types.

<sup>179</sup> For U.S. shipments to beer manufacturers, between \*\*\* and \*\*\* percent of domestic producers shipments were to firms purchasing more than 50,000 gross per year while \*\*\* percent of subject imports shipments were to firms purchasing 50,000 gross or less per year; for shipments to wine manufacturers, between \*\*\* percent and \*\*\* percent of domestic producers' shipments were to firms purchasing more than 150,000 gross per year while \*\*\* percent of subject imports' shipments were to firms purchasing 150,000 gross or less per year; for shipments to spirits manufacturers, between \*\*\* and \*\*\* percent of domestic producers' shipments were to firms purchasing more than 100,000 gross per year, and \*\*\* percent of subject imports' shipments were to firms purchasing 100,000 gross or less per year; for shipments to food manufacturers, between \*\*\* and \*\*\* percent of domestic producers' shipments were to firms purchasing more than 500,000 gross per year, and \*\*\* percent of subject import shipments were to firms purchasing 500,000 gross or less per year; and for other end use manufacturers, between \*\*\* and \*\*\* percent of domestic producers' shipments were to firms purchasing more than 200,000 gross per year, while between \*\*\* and \*\*\* percent of subject imports shipments were to firms purchasing 200,000 gross or less per year. CR/PR at Tables G-1, G-2, G-3, G-5, and G-6. Only subject imports' shipments to other beverage manufacturers were more mixed; between \*\*\* percent and \*\*\* of domestic producers' percent of were to firms purchasing more than 100,000 gross per year, and subject import shipments to these firms accounted for between \*\*\* and \*\*\* percent of their shipments. CR/PR at Table G-4. While Petitioner argues that the domestic industry had further shipments to end-use product manufacturers purchasing small/medium amounts of glass containers through shipments to distributors, the domestic industry's shipments to distributors were far less than those to end-use product manufacturers over the POI, and these shipments also declined over the POI. CR/PR at Table II-1. Accordingly, any additional shipments through distributors would not greatly alter these trends.

<sup>180</sup> Petitioner argues that "do not call" provisions in agreements with distributors prevented domestic producers from competing for sales to small- and medium-sized end-use product manufacturers. However, examples of such agreements provided by Petitioner, while preventing parties from directly soliciting the others' customers, also require that distributors promote the products of domestic producers to manufacturers. See, e.g., Petitioners' Posthearing Br. at Exhs. 12 & 13. Indeed, Petitioner acknowledges that some customers listed on these "do not call" lists \*\*\*.

purchasers reported that they had difficulties obtaining glass containers from the domestic industry in small-batch quantities and reported that producers in China had smaller minimum order quantities than domestic producers, which made subject imports a more viable option for some of the small- and medium-sized end users.<sup>181</sup>

In sum, given the lack of record evidence showing a market share shift to subject imports, the lack of adverse price effects, and the lack of correlation between the performance of the domestic industry and subject imports, we find that subject imports did not have a significant impact on the domestic industry.

Thus, we find that the domestic industry is not materially injured by reason of subject imports that Commerce has found to be subsidized by the government of China.

## **V. No Threat of Material Injury by Reason of Subject Imports**

### **A. Legal Standard**

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the domestic industry is threatened with material injury by reason of subject imports by analyzing whether “further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted.” The Commission may not make such a determination “on the basis of mere conjecture or supposition,” and considers the threat factors “as a whole” in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued. In making our determinations, we consider all statutory threat factors that are relevant to this investigation.

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Petitioners’ Posthearing Br., Resp. to Comm. Questions at 43. Petitioner argues elsewhere that all of the domestic industry’s shipments to distributors should be treated as shipments to small- and medium-sized product manufacturers. Petitioner’s Midhearing Br. at 22. Accordingly, we find that the record does not support that these provisions prevented domestic producers from serving small- and medium-sized product manufacturers.

<sup>181</sup> CR/PR at II-23-24.

## B. Likely Volume of Subject Imports

Subject import volumes by quantity fluctuated over the POI but were lower in 2019 than in 2017, while their market share by quantity also fluctuated and was only \*\*\* percentage points higher in 2019 than in 2017.<sup>182</sup> Additionally, record evidence indicates that some supply shifted from subject imports to nonsubject imports over the POI.<sup>183</sup> These import volumes, shares, and trends do not support finding that subject import volumes likely will increase significantly in the imminent future.<sup>184</sup>

Other record evidence also indicates that no significant increase is likely to occur in the imminent future. Subject imports remained the smallest source of supply in the U.S. market throughout the POI.<sup>185</sup> U.S. importers reported arranging for declining levels of subject merchandise in the future, and such arranged subject import volumes were below those arranged from nonsubject sources.<sup>186</sup> U.S. importers' and foreign producers' inventories

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<sup>182</sup> CR/PR at Table IV-5. Subject import volumes by value followed similar trends. Their volume fluctuated but finished the POI lower, and their market share fluctuated but was slightly higher in 2019 than in 2017. *Id.*

<sup>183</sup> The vast majority of both U.S. producers and importers reported that section 301 tariffs had decreased the supply of subject imports and increased the supply of nonsubject imports. CR/PR at Table II-4. Additionally, individual firms reported switching purchases from subject imports to nonsubject imports over the POI. *See, e.g.,* TricorBraun Prehearing Br. at 36 (indicating that \*\*\*). Petitioner argues that section 301 tariffs could be removed at any time and result in increases in subject import volumes. Petitioner's Prehearing Br. at 28. As Petitioner concedes, however, "it is impossible to determine the ultimate duration" of section 301 tariffs. *Id.* Further, we note that both subject and nonsubject import volumes declined between 2018 and 2019, which indicates that subject import declines over this period were not entirely a result of section 301 tariffs and that subject import volumes would not necessarily have significant increases even if such tariffs were removed. CR/PR at Table IV-5.

<sup>184</sup> Monthly HTS import data indicate that subject import volumes increased in January and February 2020, although these data may be slightly overstated with inclusion of out-of-scope products. CR/PR at Table IV-3. All parties acknowledge, however, that these volumes represented a temporary increase as importers sought to build inventories of subject merchandise prior to the imposition of cash deposits in March 2020. Petitioner's Posthearing Br. at 6; TricorBraun Posthearing Br., Resp. to Comm. Questions at 1. Accordingly, we find that these monthly import volumes are not indicative of further increases in the imminent future.

<sup>185</sup> CR/PR at Table IV-5. Indeed, nonsubject imports from Mexico by quantity were a larger source, and increased more, than subject imports over the POI. *Id.*

<sup>186</sup> CR/PR at Table VII-8. U.S. importers' arranged imports of subject merchandise were \*\*\* gross in January-March 2020, \*\*\* gross in April-June 2020, \*\*\* gross in July-September 2020, and \*\*\* gross in October-December 2020. Arranged imports from nonsubject sources totaled \*\*\* gross in January-March 2020, \*\*\* gross in April-June 2020, \*\*\* gross in July-September 2020, and \*\*\* gross in October-December 2020. *Id.*

fluctuated over the POI but were lower in 2019 than in 2017, and foreign producers' inventories were projected to further decrease in 2020 and 2021.<sup>187</sup>

Information regarding subject producers in China<sup>188</sup> further support a finding that there is unlikely to be an imminent increase in subject import volumes. We recognize that subject producers were the largest single source of global exports for glass containers by value over the POI, and the United States was the largest single destination for exports.<sup>189</sup> The share of exports to the United States, however, decreased over the POI as exports to other markets increased.<sup>190</sup> As a share of foreign producers' shipments, exports to the United States fluctuated within a narrow range and are projected to significantly decline in future; exports to other markets increased more than exports to the U.S. market over the POI and are projected to be a higher portion of shipments than exports to the United States in the future.<sup>191</sup> There

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<sup>187</sup> U.S. importers' end-of-period inventories increased from \*\*\* gross in 2017 to \*\*\* gross in 2018 before declining to \*\*\* gross in 2019, the lowest level of the POI. CR/PR at Table VII-7. Foreign producers' end-of-period inventories initially decreased from 932,719 gross in 2017 to 650,468 gross in 2018, before increasing to 759,248 gross in 2019, a lower level than in 2019; end-of-period inventories were projected to decline further to 672,047 gross in 2020 and 621,839 gross in 2021. CR/PR at Table VII-4.

<sup>188</sup> We note that questionnaire responses from foreign producers of subject merchandise are understated, and they include responses from nine firms that accounted for \*\*\* percent of subject imports in 2019. CR/PR at VII-3. Petitioner provides additional information from firms that it believes produce subject merchandise, but it has converted much of these data from tons to gross by using estimates of standard product types and weights. Petitioner Prehearing Br. at 104-105 & Exh. 46. Petitioner, however, has emphasized elsewhere the diverse product mix of glass containers, including with respect to product weight. *See, e.g.*, CR/PR at Table IV-6 (showing product mix for subject imports over POI); Petitioner Comments on Questionnaires, EDIS Doc. 699913 at 2 (emphasizing importance of accounting for product weight). Accordingly, such conversions are likely distorted by product mix, and we rely on the available questionnaire responses as the most accurate data available, while acknowledging that they are understated. In addition, as discussed above, there was no significant increase in subject import volumes – from all producers in China – during the POI, and the volume of subject imports declined in 2019, prior to the filing of the petition. These trends do not support a conclusion that the Chinese industry producing glass containers is likely to imminently increase shipments of subject merchandise to the U.S. market.

<sup>189</sup> CR/PR at Table VII-10 & Table VII-6.

<sup>190</sup> CR/PR at Table VII-6. The share of exports of glass articles to the United States from China decreased from 31.7 percent in 2017 to 28.7 percent in 2019, while exports to other markets increased from 32.2 percent in 2017 to 38.0 percent in 2019. *Id.*

<sup>191</sup> CR/PR at Table VII-4. The home market shipments of subject producers in China accounted for 63.0 percent of total shipments in 2017, 58.0 percent in 2018, and 59.6 percent in 2019. Export shipments to the United States initially increased from \*\*\* percent of total shipments in 2017 to \*\*\* percent in 2018 before declining to \*\*\* percent in 2019; they are projected to be \*\*\* percent in 2020 and 2021. Export shipments to other markets initially increased from \*\*\* percent of total shipments in



are also no known trade barriers in third country markets that might otherwise restrict the ability of subject producers to increase exports to such markets.<sup>192</sup>

Subject producers' production capacity and production fluctuated over the POI and was higher in 2019 than in 2017, but both are projected to decline in the future.<sup>193</sup> Capacity utilization rates were higher over the POI but are projected to decline in the future.<sup>194</sup> Subject producers reported only a limited ability to shift production from other products to subject merchandise.<sup>195</sup>

In light of record evidence of subject import volumes over the POI, as well as foreign producers' overall focus on export shipments, we find that subject import volumes are not likely to increase significantly in the imminent future.

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2017 to \*\*\* percent in 2018 before declining to \*\*\* percent in 2019; they are projected to be \*\*\* percent in 2020 and \*\*\* percent in 2021. *Id.*

<sup>192</sup> CR/PR at VII-12. We further note that some subsidies found to be countervailable by Commerce are export contingent, including the export buyer's credit program found to be utilized by mandatory respondents and other programs included in adverse rates applied to non-responsive firms. See Issues and Decision Memorandum for the Final Determination of the Countervailing Duty Investigation of Certain Glass Containers from the People's Republic of China, Case C-570-1115, (May 11, 2020). Nonetheless, because these subsidies did not result in significant increases in subject import volumes during the POI, we find that the record does not otherwise support that they will likely result in increases in the imminent future.

<sup>193</sup> CR/PR at Table VII-4. Foreign producers' of subject merchandise reported production capacity of 7.5 million gross in 2017, 8.4 million gross in 2018, and 7.7 million gross in 2019, but these levels are projected to decline to 6.1 million gross in 2020 and 2021, lower levels than during the POI. Subject producers' production followed similar trends and was 6.2 million gross in 2017, 7.2 million gross in 2018, and 6.5 million gross in 2019, and was projected to be 3.5 million gross in 2020 and 2021. *Id.*

<sup>194</sup> CR/PR at Table VII-4. Subject producers' capacity utilization rates increased from 82.3 percent in 2017 to 86.8 percent in 2018 and declined to 85.1 percent in 2019, a lower level than in 2017. Subject producers' projected declines in capacity utilization rates in 2020 and 2021, 56.9 percent and 58.3 percent, respectively, as subject producers forecast greater reductions in production than production capacity. Nonetheless, given that these producers further project higher portions of shipments in 2020 and 2021 to China home market shipments and exports to other markets, the record does not support that these declines in capacity utilization will necessarily result in increased exports to the United States, especially given the other record evidence discussed in this section. *Id.*

<sup>195</sup> CR/PR at Table VII-5. Subject producers' production of out-of-scope products on the same machinery accounted for only between \*\*\* and \*\*\* percent of production on this equipment over the POI. *Id.*

### **C. Likely Price Effects of Subject Imports**

As explained in section IV.D above, pricing data indicate that there was predominant overselling by subject imports over the POI.<sup>196</sup> We further find that subject imports have not depressed domestic prices to a significant degree in view of this overselling, price increases in domestic products, and the paucity of confirmed lost sales or lost revenues; nor have subject imports prevented price increases in the domestic product given declining demand, evidence of domestic price increases, and the lack of correlation between domestic producers' costs increases and subject import pricing.

Given our finding that subject import volumes are not likely to increase significantly in the imminent future, we further find that the lack of significant price effects observed during the POI will likely continue in the imminent future. Indeed, for numerous pricing products, subject imports' overselling margins increased over the POI, which undermines the notion that more aggressive pricing is likely in the imminent future.<sup>197</sup> Thus, subject imports are likely to continue to predominantly oversell the domestic industry and are not likely either to depress prices of the domestic like product to a significant degree or to prevent price increases for the domestic like product, which otherwise would have occurred, to a significant degree.<sup>198</sup>

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

As outlined above, the domestic industry's declines in production and shipments, which resulted in declining financial performance, stemmed from changes in apparent U.S. consumption. Such declines were especially pronounced in shipments to beer manufacturers, which accounted for \*\*\* percent of the decline in the domestic industry's shipments but where subject imports had a minimal and declining presence.<sup>199</sup> Even in other product categories, domestic producers' U.S. shipments followed trends in apparent U.S. consumption or lost share to nonsubject imports; domestic producers' shipments were also generally concentrated in product manufacturers purchasing large quantities of glass containers while subject imports were concentrated in product manufacturers purchasing small/medium quantities of glass

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<sup>196</sup> CR/PR at Table V-12.

<sup>197</sup> See CR/PR at Figures V-4, V-8, and V-9.

<sup>198</sup> Petitioner argues that the prevalence of long-term contracts for domestic producers will result in the price effects observed during the POI continuing in future. Petitioner's Prehearing Br. at 113-114. As we find above, however, the record does not support significant price effects during the POI.

<sup>199</sup> Calculated from CR/PR at Table F-1 and Table C-1.

containers.<sup>200</sup> Thus, the record indicates that the domestic industry's declines did not result from subject imports.

We find no evidence that subject imports are likely to have a significant impact on the domestic industry in the imminent future. As noted, much of the domestic industry's declining production and shipments resulted not from subject imports, but from falling demand for shipments of glass containers (particularly to beer manufacturers), yet the domestic industry's plant closures and furnace shutdowns allowed the industry to maintain relatively steady capacity utilization rates over the POI notwithstanding these decreases.<sup>201</sup> Additionally, U.S. shipment data indicate that domestic producers have increased shipments to other product manufacturers where demand increased over the POI,<sup>202</sup> or held steady/increasing market share to product manufacturers where demand decreased.<sup>203</sup> Finally, the domestic industry reported increases in capital expenditures over the POI, with many of these related to \*\*\*,<sup>204</sup> and a new market entrant is scheduled to commence production in 2021.<sup>205</sup>

Petitioner argues that the domestic industry is vulnerable to threat of material injury because of lost market share to subject imports, declining financial performance over the POI, and the effects of COVID-19.<sup>206</sup> As discussed above, however, the record does not support that

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<sup>200</sup> See generally CR/PR at Appendix F & G.

<sup>201</sup> CR/PR at Table C-1.

<sup>202</sup> CR/PR at Table F-3 (indicating increased shipments by quantity and value to spirits manufacturers).

<sup>203</sup> See, e.g., CR/PR at Table at F-2 (increasing share of shipments by quantity and value to wine manufacturers), Table F-4 (increasing share of shipments by quantity and value to other beverage manufacturers), Table F-5 (relatively steady share of shipments by quantity and value to food manufacturers).

<sup>204</sup> CR/PR at Table VI-5 & pg. VI-16 n.16.

<sup>205</sup> CR/PR at II-13. Arglass Southeast LLC ("Arglass") asserts that its "business strategy {} is driven by the demand in this segment that is currently not served by the U.S. industry. Arglass describes itself as an alternative solution 'in an industry largely focused on products that require long production runs.'" YGQ Prehearing Brief at 9. As stated on Arglass' website: "Arglass was born to be the most flexible, efficient and sustainable glass container manufacturer in America. Our state-of-the-art plant has been designed to produce custom bottles and jars without the very large-volume commitments required by others... Incumbents have filled their plants with products that allow for long-run productions (i.e.: beer), focusing on utilization above all else, leaving customer needs such as emergency batches, shorter runs and customized products, unattended." TricorBraun Prehearing Brief at 6 and Exh. 1.

<sup>206</sup> Petitioner's Prehearing Br. at 97-99. We find the record is unclear as to how COVID-19 may affect the domestic industry in the imminent future. While Petitioner posits that COVID-19 will result in an economic recession and supply chain disruptions that will negatively impact domestic producers, respondents posit that the shift to purchasing food/beverages for home use will conversely increase demand for glass containers in the U.S. market and benefit the domestic industry, which remained open as an essential business during shutdowns. Petitioner's Prehearing Br. at 99 & Posthearing Br., Resp. to

the domestic industry lost market share to subject imports, but rather that market share losses stemmed primarily from declining demand for glass containers shipped to beer producers.<sup>207</sup> Notwithstanding the domestic industry's overall declining performance, the industry maintained positive operating income and gross profits over the POI, continued making capital investments, and a new market entrant will specialize in small production runs of customized products.<sup>208</sup> Accordingly, we do not find the domestic industry to be vulnerable.

For the reasons discussed above, we find that subject imports are not likely to have an adverse impact on the domestic industry in the imminent future.

## VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of subject imports of glass containers from China that are subsidized by the government of China.

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Comm. Questions at 47-49 & 54-55; Berlin Packaging Prehearing Br. at 7-8; TricorBraun Midhearing Br. at 2. We further note that, according to the Beer Institute, the majority of beer consumed "on-premise" (e.g., taprooms, pubs, etc.) in the U.S. is packaged in kegs; to the extent this is replaced by home consumption, it would come from bottles and cans. See Berlin Packaging Prehearing Brief at Exh. 9 (Trends in Beer Packaging by Michael Uhrich (Oct. 17, 2019), indicating that 61.7 percent of beer consumed "on-premise" is beer in kegs).

<sup>207</sup> Shipments to beer manufacturers accounted for \*\*\* of the domestic industry's shipments by quantity over the POI, and the largest portion by value as well. In contrast, subject imports had a minimal presence in shipments of these products. Because domestic producers were more impacted by the declining beer shipments than other sources, its relative market share declined over the POI. Compare CR/PR at Table F-1 (U.S. shipments to beer manufacturers) with Table C-1 (total U.S. shipments).

<sup>208</sup> CR/PR at Table VI-3. The domestic industry's \*\*\* resulted from large increases in other expenses over this time period reported by two firms, \*\*\*, but these firms reported that these expenses were \*\*\*, which do not support that in the future such expenses will necessarily recur. *Id.* at VI-14-15. Further, these firms reported the \*\*\* over the POI, indicating that these expenses had not impaired these firms' ability to invest in production operations. CR/PR at Table VI-5. Arglass has reported that it will specialize in supplying glass containers to specialty and small-batch producers, indicating that domestic industry shipments to small- and medium-sized product manufacturers may also increase in future. CR/PR at II-13.

# Part I: Introduction

## Background

These investigations result from petitions filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by the American Glass Packaging Coalition, Tampa, Florida and Chicago, Illinois, on September 25, 2019, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value (“LTFV”) imports of glass containers<sup>1</sup> from China. The following tabulation provides information relating to the background of these/this investigation(s).<sup>2 3</sup>

Effective date	Action
September 25, 2019	Petitions filed with Commerce and the Commission; institution of Commission investigations (84 FR 52536, October 2, 2019)
October 15, 2019	Commerce’s initiation of countervailing duty investigation (84 FR 56168, October 21, 2019); Commerce’s initiation of less-than-fair-value investigation (84 FR 56174, October 21, 2019)
November 12, 2019	Commission’s preliminary determinations (84 FR 63677, November 18, 2019)
February 24, 2020	Commerce’s preliminary CVD determination (85 FR 12256, March 2, 2020); scheduling of final phase of Commission CVD investigation (85 FR 13183, March 6, 2020)
May 6, 2020	Commission’s hearing
May 22, 2020	Commerce’s final CVD determination (85 FR 31141, May 22, 2020)
June 9, 2020	Commission’s vote
June 23, 2020	Commission’s views

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<sup>1</sup> See the section entitled “The subject merchandise” in Part I of this report for a complete description of the merchandise subject in this proceeding.

<sup>2</sup> Pertinent *Federal Register* notices are referenced in appendix A and may be found at the Commission’s website ([www.usitc.gov](http://www.usitc.gov)).

<sup>3</sup> Appendix B contains a list of witnesses who appeared at the Commission’s hearing.

## Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the “Act”) (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--

*shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--<sup>4</sup>

*In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant. . . In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . . (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.*

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<sup>4</sup> Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

*In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—<sup>5</sup>*

*(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.*

## **Organization of report**

Part I of this report presents information on the subject merchandise, subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission’s consideration of the question of threat of material injury as well as information regarding nonsubject countries.

## **Market summary**

Glass containers are mostly used for the transportation and packaging of beverages and other liquids or food products.<sup>6</sup> The leading U.S. producers of glass containers are \*\*\* and \*\*\*, while leading producers of glass containers outside the United States include \*\*\* of China.<sup>7</sup> The leading U.S. importers of glass containers from China are \*\*\* and \*\*\*, while the leading importers of product from nonsubject countries

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<sup>5</sup> Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

<sup>6</sup> Glass Packaging Institute, “Benefits of Glass Packaging,” <http://www.gpi.org/learn-about-glass/benefits-glass-packaging>, retrieved October 15, 2019.

<sup>7</sup> This information is based on responses to the Commission’s foreign producers’ questionnaires that were submitted in the preliminary phase of these investigations. As discussed in more detail in Part VII, \*\*\* did not submit a response to the Commission’s foreign producers’ questionnaire in the final phase of these investigations. Consequently, information on the glass containers industry in China may be incomplete due to limited responses from producers in China.

(primarily Mexico) include \*\*\* and \*\*\*.<sup>8</sup> Purchasers that buy the highest volumes of glass containers are typically those that bottle beer, and include InBev (Anheuser-Busch) and Molson-Coors. Apparent U.S. consumption of glass containers totaled \*\*\* gross<sup>9</sup> (\$\*\*\*) in 2019. Currently, six firms are known to produce glass containers in the United States. U.S. producers' U.S. shipments of glass containers totaled \*\*\* gross (\$\*\*\*) in 2019 and accounted for \*\*\* percent of apparent U.S. consumption by quantity and \*\*\* percent by value. U.S. imports from China totaled \*\*\* gross (\$\*\*\*) in 2019 and accounted for \*\*\* percent of apparent U.S. consumption by quantity and \*\*\* percent by value. U.S. imports from nonsubject sources totaled \*\*\* gross (\$\*\*\*) in 2019 and accounted for \*\*\* percent of apparent U.S. consumption by quantity and \*\*\* percent by value.

## Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of six firms that accounted for the vast majority of U.S. production of glass containers in 2019.<sup>10</sup> U.S. imports are based on adjusted official import statistics.<sup>11</sup>

## Previous and related investigations

Glass containers have never been the subject of prior antidumping or countervailing duty investigations in the United States.

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<sup>8</sup> Based on questionnaire data and \*\*\*. \*\*\*.

<sup>9</sup> One gross is equivalent to 144 units.

<sup>10</sup> In addition to the four firms that provided a response to the Commission's questionnaire in the preliminary phase of these investigations, the Commission received responses to the Commission's questionnaire from Longhorn Glass Corporation ("Longhorn") and Rocky Mountain Bottle Company ("Rocky Mountain"). Since the responses from the four U.S. producers in the preliminary phase accounted for 91 percent of total production in 2018, Commission staff believes that these six responses represent the vast majority of total production in 2019.

<sup>11</sup> Official import statistics have been adjusted to remove imports of out-of-scope merchandise classified under HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 and 7010.90.5055 based on imports of out-of-scope merchandise reported by \*\*\*, \*\*\*, \*\*\*, \*\*\*, and \*\*\*. \*\*\*, \*\*\*, and \*\*\* in questionnaire responses. \*\*\* and \*\*\* adjustments are based on \*\*\* data.



## Nature and extent of subsidies and sales at LTFV

### Subsidies

On May 22, 2020, Commerce published a notice in the *Federal Register* of its final determination of countervailable subsidies for producers and exporters of glass containers from China.<sup>12</sup> Table I-1 presents Commerce's findings of subsidization of glass containers in China.

**Table I-1**  
**Glass containers: Commerce's final subsidy determination with respect to imports from China**

Entity	Final countervailable subsidy margin (percent)
Guangdong Huaxing Glass Co., Ltd	27.10
Qixia Changyu Glass Co., Ltd	25.46
Cangzhou Roter Faden Glass Products	320.53
Choicest International	320.53
Guangzhou Idealpak Business	320.53
Haimen Sanlong Glass Products	320.53
Hebei Anyu Glass Products Co., Ltd	320.53
Hebei Zhengji Glass Products Co., Ltd	320.53
Huazhong Glass Co. Ltd. (Changxing)	320.53
Iboya Glass	320.53
Jiangmen Zhong'an Import and Export	320.53
Jining Baolin Glass Product Co. Ltd	320.53
Kisco Trading Shanghai	320.53
Lianyungang Chinamex Trade	320.53
Linlang (Shanghai) Glass Products Co. Ltd	320.53
Ningbo Vifa International Trade Co.	320.53
Qingdao Auro Pack	320.53
Rockwood & Hines (Jiaxing) Co. Ltd.	320.53
Shandong Hongda Glassware Co. Ltd.	320.53
Shandong Mounttai Sheng Li Yuan GLA	320.53

Table continued on next page.

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<sup>12</sup> 85 FR 31141, May 22, 2020.

**Table I-1--Continued****Glass containers: Commerce's final subsidy determination with respect to imports from China**

<b>Entity</b>	<b>Final countervailable subsidy margin (percent)</b>
Shandong Wensheng Glass Technology Co. Ltd	320.53
ShangHai Misa Glass Co. Ltd	320.53
Shanghai Vista Packaging	320.53
Suzhou Yunbo Glass	320.53
Value Chain Glass Ltd (VCG)	320.53
Wheaton Glass	320.53
Wuhan Vanjoin Packaging Co. Ltd	320.53
Xiamen Cheer Imp & Exp Co. Ltd	320.53
Xuzhou Dahua Glass Products Co. Ltd	320.53
Xuzhou Fangbao Glassware	320.53
Xuzhou Huajing Glass Products	320.53
Xuzhou Livlong Glass Proudcts Co. Ltd	320.53
Xuzhou Pretty Glass Products	320.53
Xuzhou Yanjia Glassware	320.53
Yantai NBC Glass Packaging Co. Ltd	320.53
Yuncheng Jinpeng Glass Co. Ltd	320.53
Zhejiang Industrial Minerals Foreign Trade Co Ltd	320.53
Zibo CY International Trade Co. Ltd	320.53
Zibo Regal Glassware	320.53
Zibo Rongdian Glass Co. Ltd	320.53
All others	26.28

Source: 85 FR 31141, May 22, 2020.

**Sales at LTFV**

On April 29, 2020, Commerce published a notice in the *Federal Register* of its preliminary determination of sales at LTFV with respect to imports of glass containers from China.<sup>13</sup> Individual dumping margins ranged from 7.60 percent assigned to Qixia Changyu Glass Co., Ltd., to 255.68 percent assigned to all others. See Appendix D for a complete list of Commerce's preliminary LTFV margins by firm.

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<sup>13</sup> 85 FR 23759, April 29, 2020.

## The subject merchandise

### Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:<sup>14</sup>

*Certain glass containers with a nominal capacity of 0.059 liters (2.0 fluid ounces) up to and including 4.0 liters (135.256 fluid ounces) and an opening or mouth with a nominal outer diameter of 14 millimeters up to and including 120 millimeters. The scope includes glass jars, bottles, flasks and similar containers; with or without their closures; whether clear or colored; and with or without design or functional enhancements (including, but not limited to, handles, embossing, labeling, or etching).*

*Excluded from the scope of the investigations are: (1) Glass containers made of borosilicate glass, meeting United States Pharmacopeia requirements for Type 1 pharmaceutical containers; (2) glass containers without "mold seams," "joint marks," or "parting lines;" and (3) glass containers without a "finish" (i.e., the section of a container at the opening including the lip and ring or collar, threaded or otherwise compatible with a type of closure to seal the container's contents, including but not limited to a lid, cap, or cork).*

### Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to this investigation is imported under subheading 7010.90.50 of the Harmonized Tariff Schedule of the United States ("HTS") (including all of its statistical reporting numbers: 7010.90.5005; 7010.90.5009; 7010.90.5015; 7010.90.5019; 7010.90.5025; 7010.90.5029; 7010.90.5035; 7010.90.5039; 7010.90.5045; 7010.90.5049; 7010.90.5055).<sup>15</sup>

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<sup>14</sup> 85 FR 31141, May 22, 2020.

<sup>15</sup> Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Glass containers classified in subheading 7010.90.50 are dutiable at a column-1 general rate of “free.” The subject glass containers that are the product of China are subject to an additional 25 percent ad valorem duty under Section 301 of the Trade Act of 1974.<sup>16</sup> Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

## The product

### Description and applications

In the context of these investigations, glass containers refer to bottles, jars, and certain other glass envelopments with a nominal capacity between 0.059 and 4 liters.<sup>17</sup> Glass containers may be composed of clear or colored glass, with or without designs or functional enhancements, such as handles, embossing, labeling, frosting, or etching. Most glass containers are made from soda-lime glass.<sup>18</sup> <sup>19</sup> Glass containers typically have "mold seams" (also referred to as "joint marks" or "parting lines"), which are raised lines of glass running vertically throughout the length of the container formed where the edges of different mold sections come together during the production process.<sup>20</sup> Glass containers have typically a "finish" at the opening, which includes the lip and "collar" or "ring," that is threaded, ribbed, or otherwise designed to be compatible with a closure (such as a lid, cap, cork, or other) in order to seal the container's contents.

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<sup>16</sup> 83 FR 47974 (included in group of products from China subject to an additional duty of 10 percent ad valorem effective September 24, 2018); *see also* 84 FR 20459 (included in group of products from China subject to an additional 25 percent ad valorem effective May 10, 2019). Respondents have indicated that no exclusions to these tariffs have been granted to subject imports, and that no exclusion requests remain outstanding. Hearing transcript, p. 98 (Wessel).

<sup>17</sup> A witness for the domestic industry indicated that there is no domestic production of glass containers outside this size range. Conference Tr. at 63 (Shaddox).

<sup>18</sup> O. Berk, “Let’s Make a Bottle: Understanding the Glass Bottle Formation Processes,” <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

<sup>19</sup> Glass bakeware and certain glass containers are sometimes made from borosilicate glass, which is not subject to the scope of this investigation. Borosilicate glass is a specialty glass with greater thermal resistance and durability compared to soda-lime glass. Corning Museum of Glass, “All About Glass,” October 20, 2011, <https://www.cmog.org/article/finding-right-recipe-borosilicate-glass>, retrieved March 12, 2020.

<sup>20</sup> Glass Packaging Institute, “Benefits of Glass Packaging,” <http://www.gpi.org/learn-about-glass/benefits-glass-packaging>, retrieved March 12, 2020, and O. Berk, “Let’s Make a Bottle: Understanding the Glass Bottle Formation Processes,” <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

Glass containers are mostly used for the transportation and packaging of beverages and other liquids or food products.<sup>21</sup> The subject merchandise includes, but is not limited to beer, wine, and liquor bottles made of glass, non-alcoholic beverage bottles, ready-to-drink bottles, jars, and food containers. The food and beverage packaging industry uses glass containers because of their durability, strength, and impermeability.<sup>22</sup> In particular, glass packaging material offers certain advantages over other packaging materials due to its relative ability to preserve a product's taste or flavor and maintain the health and integrity of the food or beverage.<sup>23</sup> The U.S. Food and Drug Administration regards glass containers as being generally recognized as safe.<sup>24</sup> Furthermore, glass containers are recyclable and can be reused without any loss in quality or purity.<sup>25</sup>

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<sup>21</sup> Glass Packaging Institute, "Benefits of Glass Packaging," <http://www.gpi.org/learn-about-glass/benefits-glass-packaging>, retrieved March 12, 2020.

<sup>22</sup> Ibid.

<sup>23</sup> Other materials that are commonly used to create food packaging containers are plastic, paper, aluminum, tin, and stainless steel. ThomasNet, "Types of Food Containers," <https://www.thomasnet.com/articles/materials-handling/types-of-food-containers/>, retrieved March 26, 2020.

<sup>24</sup> Glass Packaging Institute, "Benefits of Glass Packaging," <http://www.gpi.org/learn-about-glass/benefits-glass-packaging>, retrieved March 12, 2020.

<sup>25</sup> Ibid. Industry witnesses, however, have indicated that recycling rates of glass in the United States are approximately 30 percent, compared to 70 percent in Europe. Conference Tr. at 43-44 (Paulet).

## Manufacturing processes

Glass containers are primarily composed of the following raw materials: silica sand, soda ash, limestone, and cullet (recycled glass).<sup>26</sup> Cullet improves the furnace efficiencies and lowers energy consumption. Before use, cullet is usually color separated, crushed, and screened and vacuumed to remove contaminants.<sup>27</sup> Secondary raw materials include fining agents, decolorizers, and colorizers.<sup>28</sup> The most common fining agents are sulfates in combination with carbon. Of the sulfates used, sodium sulfate, or salt cake, is the most common. Sodium sulfate acts as a wetting agent to aid in melting the silica source and as a fining agent.<sup>29</sup>

The manufacturing process for glass containers is a continuous operation, and consists of three production stages: mixing, melting, and forming. After the glass container is formed, it is subject to annealing and inspection to prevent and detect damages, respectively.

### Mixing

The raw materials are stored in large silos at the batch house. When ready to use, the raw materials are measured and then sent to a mixer. Cullet may be added to the mixture and may account for up to 95 percent of the total mix.<sup>30</sup> This mixture of sand, soda ash, limestone, cullet, and small quantities of other chemicals and decolorizers is referred to as the batch. Once the cullet is fully incorporated with the other raw materials, the batch mixture is transported to the furnace.<sup>31</sup> Figure I-1 provides additional information and a graphical depiction of the mixing process.

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<sup>26</sup> Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020; and O.Berk, “Let’s Make a Bottle: Understanding the Glass Bottle Formation Processes,” <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

<sup>27</sup> Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

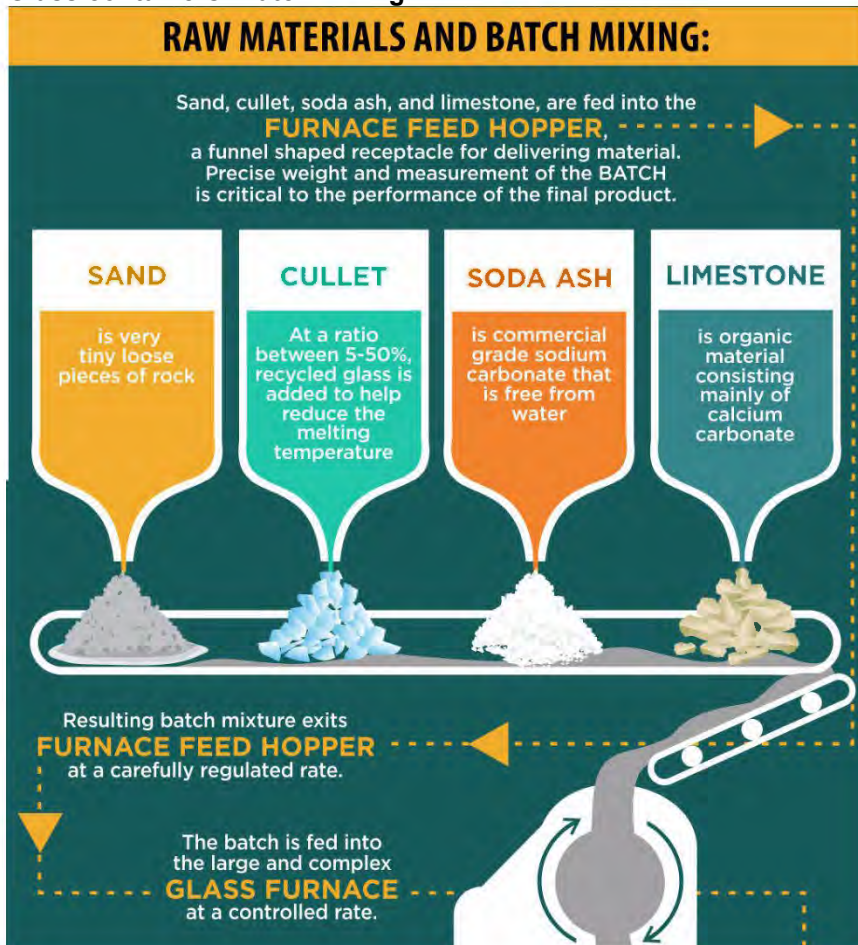
<sup>28</sup> A fining agent is used to aid in the melting of silica, which will in turn reduce the gas content of the molten glass. Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

<sup>29</sup> Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

<sup>30</sup> Reportedly, the average domestic batch contains approximately 40 percent cullet. Transcript, p. 77 (Paulet); and Glass Packaging Institute, “Glass Recycling Facts,” <http://www.gpi.org/recycling/glass-recycling-facts>, retrieved March 12, 2020.

<sup>31</sup> Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

Figure I-1  
Glass containers: Batch mixing



Source: O.Berk, "From Grit to Glass, How Are Glass Bottles Made," <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

## Melting

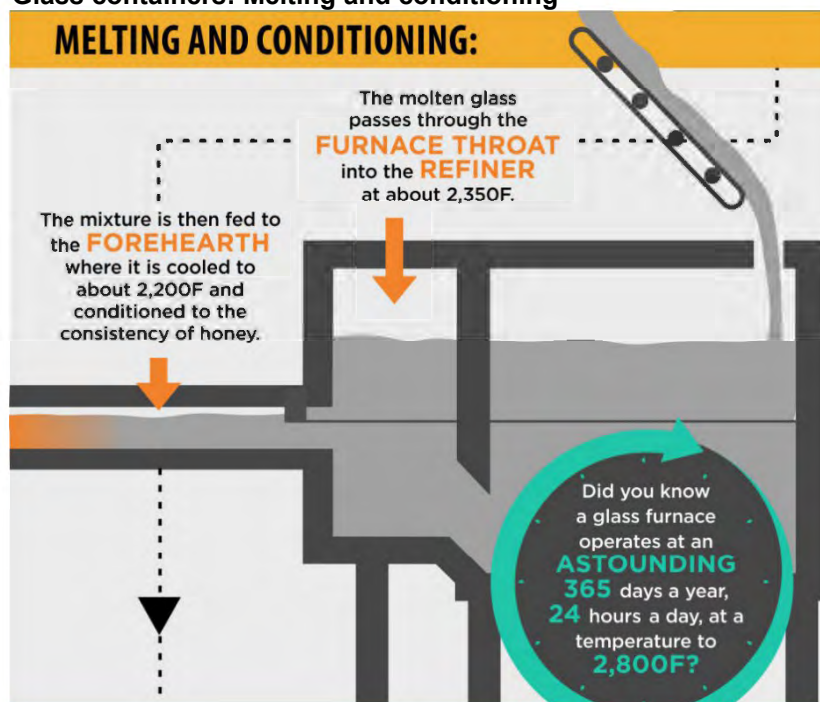
The batch is then fed into the furnace at a controlled rate. The furnace consists of three main parts: the melter, the refiner, and the forehearth. Most furnaces are designed to use natural gas as their fuel source.<sup>32</sup> The batch travels through the furnace, which has the capability to maintain accurate temperatures up to 3,200 degrees Fahrenheit.<sup>33</sup> Figure I-2 depicts the melting process.

<sup>32</sup> Furnaces can use alternate fuels such as oil, propane, and electricity if necessary. Glass Packaging Institute, "Learn About Glass," <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

<sup>33</sup> Glass Packaging Institute, "Learn About Glass," <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020; and CM Furnaces, Inc., "Glass Furnaces for Melting and Fritting," <https://cmfurnaces.com/glass-furnaces/>, retrieved March 12, 2020.

The melter is a rectangular basin wherein the melting and fining occurs.<sup>34</sup> Above the glass level on each side of the melter are three to seven ports, which house natural gas burners. These ports direct the combustion air and exhaust gases to melt the raw materials into molten glass. The molten glass then flows through the refiner. The refiner acts as a holding basin where the glass cools to a uniform temperature before entering the forehearth. The mixture is then fed into the forehearth, where it is carefully cooled to a desired temperature and viscosity before reaching the feeder. Glass manufacturing plants operate 24 hours per day, year-round.<sup>35</sup> Glass furnaces have a lifespan of approximately 10 years.<sup>36</sup>

**Figure I-2**  
**Glass containers: Melting and conditioning**



Note: In the image above, the melter would be the right most basin in the figure above.

Source: O.Berk, "From Grit to Glass, How Are Glass Bottles Made", <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

<sup>34</sup> Fining is the process where gas is removed from the molten glass.

<sup>35</sup> The glass furnace needs to run continuously; otherwise, the molten glass will harden resulting in the furnace being inoperable. O.Berk, "Let's Make a Bottle: Understanding the Glass Bottle Formation Processes," <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020; and Glass Packaging Institute, "Learn About Glass," <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

<sup>36</sup> Glass Packaging Institute, "Learn About Glass," <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.



## Forming

The molten glass is extruded out of holes in the bottom of the furnace, forming “gobs.” When molten glass exits the furnace, mechanized shears cut the molten glass at precise intervals to distribute the exact amount (gob) of molten glass required to form the glass bottle. The gobs are gravity fed into the forming machine. The gob falls into the blank mold, which forms the container’s neck and produces a hollow, partially formed container, known as a parison.<sup>37</sup> There are two distinct methods for forming glass containers: the blow and blow and the press and blow methods.<sup>38</sup> The blow and blow method is preferred for forming containers with narrow-neck containers; the press and blow method is used to form jars and wide-neck containers.<sup>39</sup> Despite this conventional wisdom, the press and blow method is used to create glass beer bottles because it is more efficient at producing lightweight bottles.<sup>40</sup> Both of the forming methods use an individual section machine, which is designed to improve production efficiency by allowing for repairs in individual sections without shutting down other production operations.<sup>41</sup> Figure I-3 shows how the liquid glass is formed into a parison.

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<sup>37</sup> Molds are custom engineered to meet the purchaser’s design specifications and to be compatible with the glass container producer’s production machinery. Fusion Glassworks, “Production Info & FAQ,” <http://www.fusion-glassworks.com/production-faq.html>, retrieved May 29, 2020; and Empak Glass Solutions, “Glass Mould Container Design, Equipment, Development, Stress Analysis,” <https://www.empakglass.com/service-empakglass-mould-design>, Retrieved, May 29, 2020.

<sup>38</sup> O.Berk, “Let’s Make a Bottle: Understanding the Glass Bottle Formation Processes,” <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

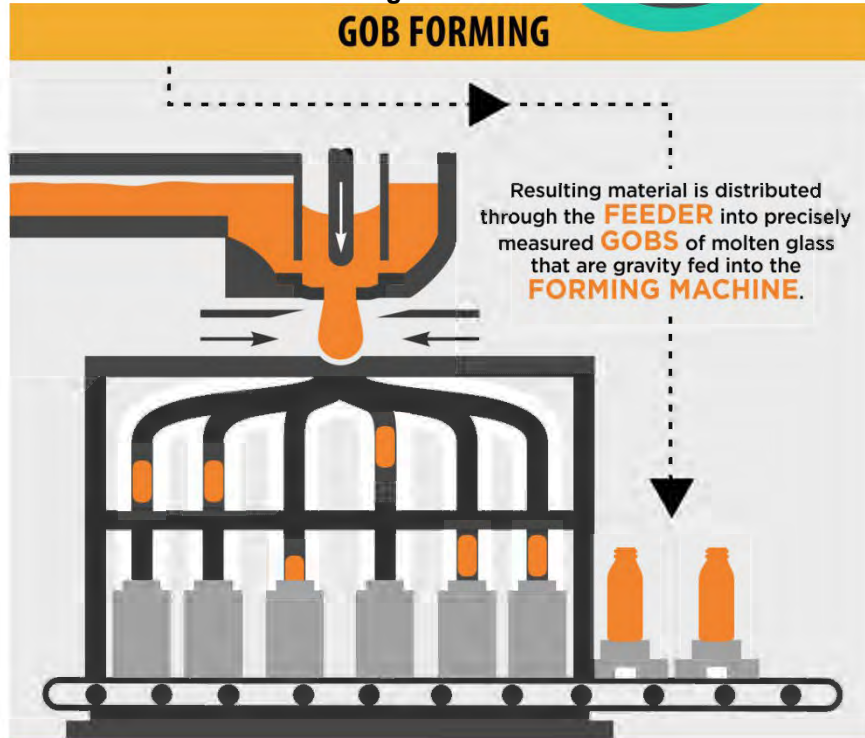
<sup>39</sup> Ibid.

<sup>40</sup> “The Glass Bottle Manufacturing Process,” Qorpak, <http://www.qorpak.com/pages/glassbottlemanufacturingprocess>, retrieved March 12, 2020.

<sup>41</sup> Glass Packaging Institute, “Learn About Glass,” <http://www.gpi.org/learn-about-glass>, retrieved March 12, 2020.

Figure I-3

Glass containers: Gob forming



Source: O.Berk, "From Grit to Glass, How Are Glass Bottles Made", <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

The blow and blow method is a production process where compressed air is applied twice to produce the final container shape.<sup>42</sup> As shown in the left side of Figure I-4, a gob enters a blank mold.<sup>43</sup> Compressed air is injected into the blank mold forming the parison. The parison is inverted 180 degrees and transferred from the blank mold to the blow mold.<sup>44</sup> After the parison is reheated, compressed air is applied to inflate the parison to form the finished container. The finished container is then removed from the blow mold and proceeds to the annealing process.

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<sup>42</sup> "The Glass Bottle Manufacturing Process," Qorpak, <http://www.qorpak.com/pages/glassbottlemanufacturingprocess>, retrieved March 12, 2020.

<sup>43</sup> Blank molds are the industry term for the metal molds that form the parison. SKS Bottle & Packaging, "Glass Glossary," [https://www.sks-bottle.com/Glass\\_Glossary.html](https://www.sks-bottle.com/Glass_Glossary.html), retrieved March 12, 2020.

<sup>44</sup> Ibid.

The press and blow method is a production process where the parison is pressed with a plunger and then blown to form the final shape of the container.<sup>45</sup> As shown on the right side of Figure I-4, a metal plunger is first used to shape the gob into the parison. The parison is then inverted and moved over to the blow mold, where compressed air blows the container into its final shape. The finished container is then removed and proceeds to the annealing process. Press and blow methods are typically used for manufacturing wide-mouth bottles and jars because the wide opening size allows the plunger into the parison.<sup>46</sup>

**Figure I-4**  
**Glass containers: Container formation processes**

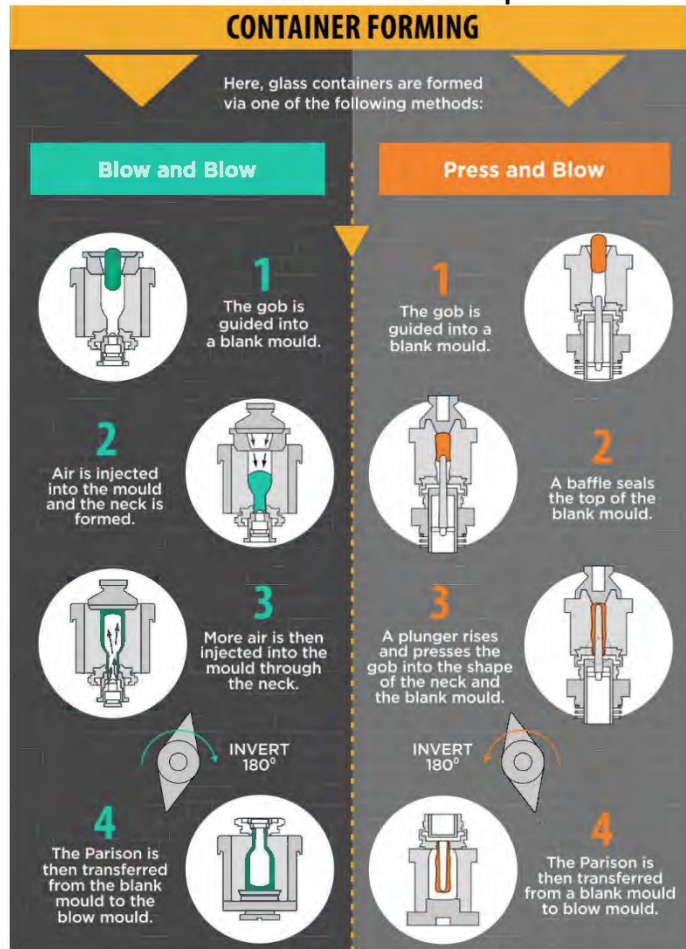
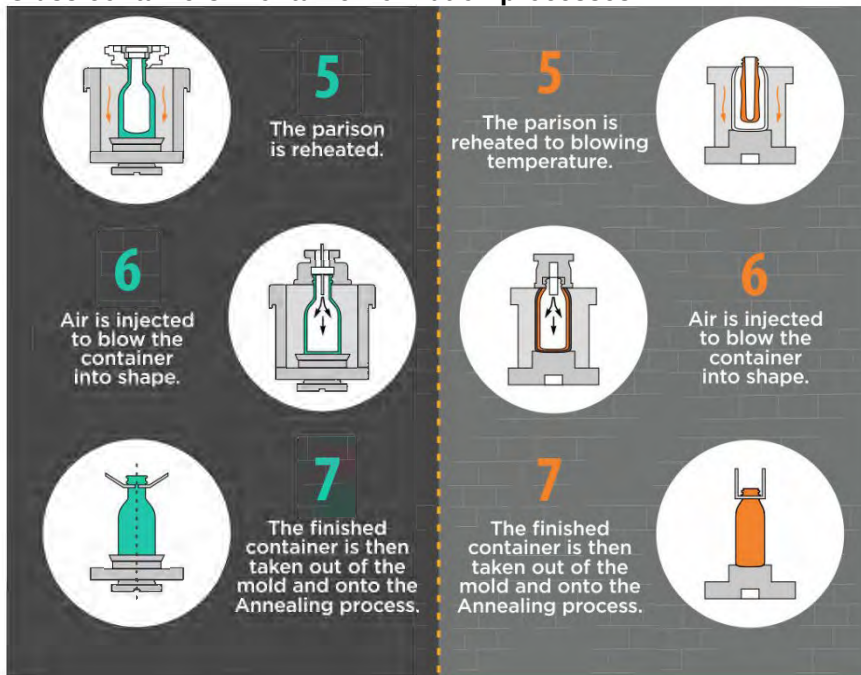


Figure continued on next page.

<sup>45</sup> "The Glass Bottle Manufacturing Process," Qorpak, <http://www.qorpak.com/pages/glassbottlemanufacturingprocess>, retrieved March 12, 2020.

<sup>46</sup> O. Berk, "Let's Make a Bottle: Understanding the Glass Bottle Formation Processes," <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020; and "The Glass Bottle Manufacturing Process," Qorpak, <http://www.qorpak.com/pages/glassbottlemanufacturingprocess>, retrieved March 12, 2020.

**Figure I-4--Continued**  
**Glass containers: Container formation processes**



Source: O.Berk, "From Grit to Glass, How Are Glass Bottles Made", <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

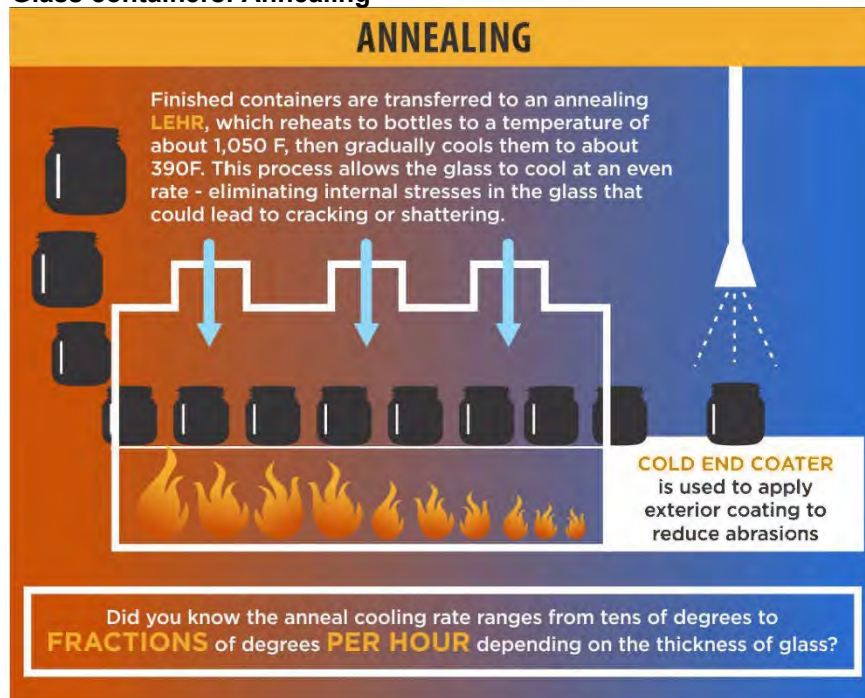
## Annealing

After formation, the finished glass containers cross a cooling plate where the temperature drops to around 900 degrees Fahrenheit. The glass containers are then loaded into the annealing lehr, which brings the temperature back up to near melting point, then slowly reduces the temperature to below 900 degrees.<sup>47</sup> The annealing process cools the internal and external surfaces of glass containers at an even rate, which reduces the chance of surface deformities.<sup>48</sup> As glass containers exit the annealing lehr, the exteriors of the glass containers are sprayed with a lubricant that reduces the chance of breakage during the inspection processes. Figure I-5 illustrates the annealing process and contains some additional information.

<sup>47</sup> The lehr is a long belt-fed, tunnel shaped oven that reduces the temperature of the glass containers to minimize thermal stresses and prevent damaging. SKS Bottle & Packaging, "Glass Glossary," [https://www.sks-bottle.com/Glass\\_Glossary.html](https://www.sks-bottle.com/Glass_Glossary.html), retrieved March 12, 2020.

<sup>48</sup> O.Berk, "Let's Make a Bottle: Understanding the Glass Bottle Formation Processes," <https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

**Figure I-5**  
**Glass containers: Annealing**



Source: O.Berk, "From Grit to Glass, How Are Glass Bottles Made", <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

### **Inspection, Packaging, and shipping**

Once cooled, the glass containers undergo a series of inspections. The first involves rotating the bottles and using cameras to check for imperfections in the glass. Various machines check the top of the bottle to ensure the threads and dimensions of the glass container are correct. Finally, employees visually inspect the glass containers. Rejected containers are recycled into cullet then re-melted. Glass containers that pass inspection are then ready for packaging. Glass containers are typically packaged in bulk or carton packaging. Bulk packaging refers to packaging glass containers on pallets with corrugated sheets between each layer. Carton packaging (also known as case packaging) refers to packaging glass containers into the customers' shipping cartons.<sup>49</sup> The quantity of glass containers contained carton packaging can range between 1 and 24, depending upon the purchaser's preferences.<sup>50</sup> The finished glass

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<sup>49</sup> ULINE, "Bottle Carriers, Wine Bottle Carriers, Beer Bottle Carriers in Stock," [https://www.uline.com/BL\\_8681/Bottle-Carriers](https://www.uline.com/BL_8681/Bottle-Carriers), retrieved May 29, 2020.

<sup>50</sup> ULINE, "Wine Shipping Boxes, Wine Boxes, Wine Shippers in Stock," [https://www.uline.com/Grp\\_237/Wine-Shippers-and-Supplies](https://www.uline.com/Grp_237/Wine-Shippers-and-Supplies), retrieved May 29, 2020; and ULINE,

containers are then palletized and either shipped directly to the customer or stored in warehouses.<sup>51</sup> The inspection and packaging processes are represented in Figure I-6.

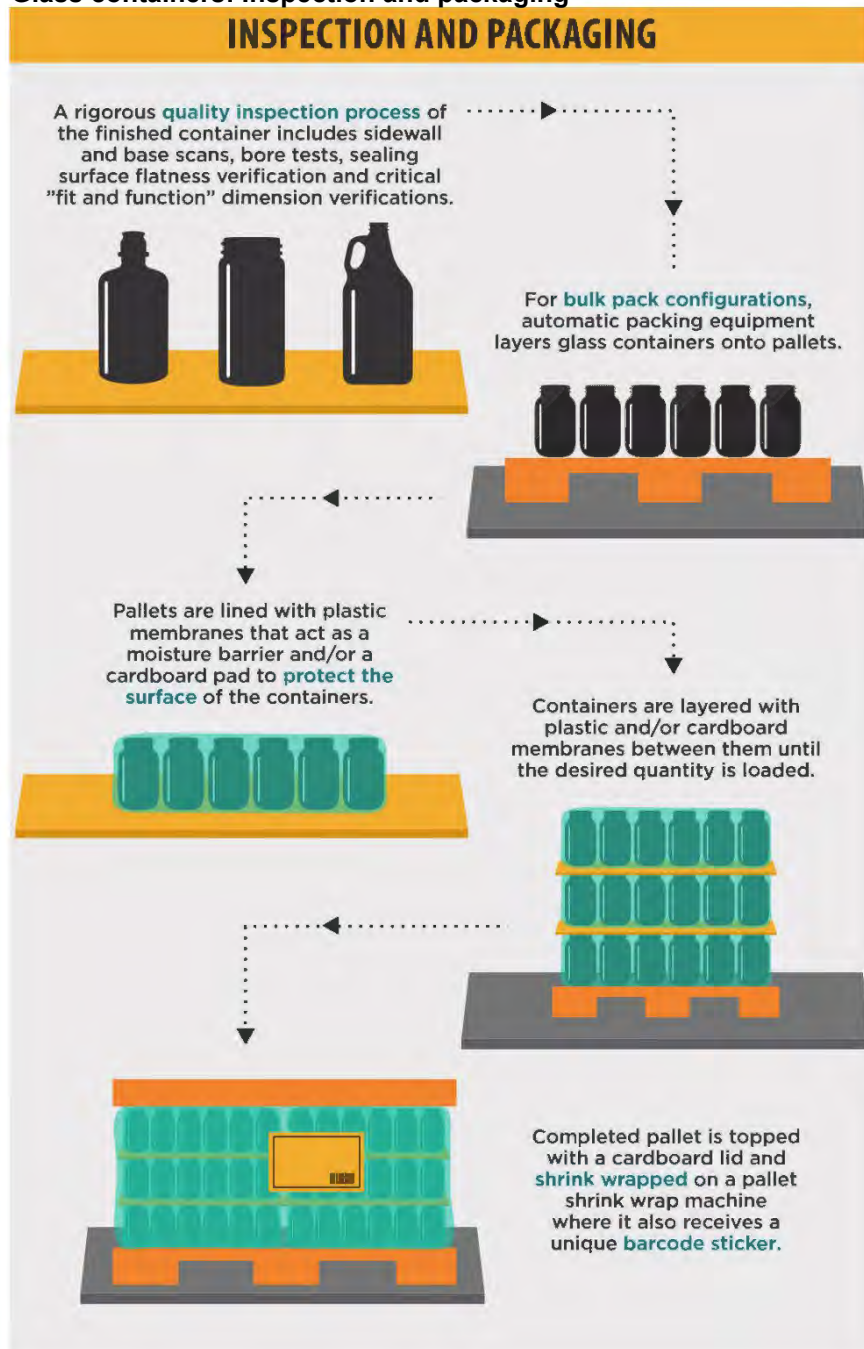
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“Bottle Shippers, Wine Cardboard Boxes, Beer Shipping Boxes in Stock,”

[https://www.uline.com/BL\\_5453/Corrugated-Bottle-Carriers](https://www.uline.com/BL_5453/Corrugated-Bottle-Carriers), retrieved May 29, 2020.

<sup>51</sup> O.Berk, “Let’s Make a Bottle: Understanding the Glass Bottle Formation Processes,”  
<https://www.oberk.com/packaging-crash-course/glass-bottle-formation>, retrieved March 12, 2020.

Figure I-6  
Glass containers: Inspection and packaging



Source: From Grit to Glass, How Are Glass Bottles Made - Infographic, O.Berk, 2017, <https://www.oberk.com/packaging-crash-course/from-grit-to-glass-how-it-is-made>, retrieved March 12, 2020.

## Domestic like product issues

In the preliminary phase of these investigations, the petitioner argued that the domestic like product should be a single like product, co-extensive with the scope of these investigations.<sup>52</sup> Respondents Berlin and TricorBraun agreed with the petitioner's definition of the domestic like product for purposes of the preliminary determinations and did not assert arguments to the contrary.<sup>53</sup> In its preliminary determinations, the Commission concluded that all glass containers are generally similar in terms of their physical characteristics, end use, and channels of distribution, and to some extent, interchangeability and price.<sup>54</sup> The Commission concluded that the preliminary record was mixed with regards to manufacturing facilities, production processes, and employees.<sup>55</sup> Consequently, the Commission defined the domestic like product as all glass containers coextensive with the scope of the investigations.

In the final phase of these investigations, the Petitioner continues to advocate that the Commission define a single domestic like product coextensive with the scope of investigations, consistent with the preliminary determinations.<sup>56</sup> No respondent party advocates that the Commission define the domestic like product differently from the preliminary determinations.<sup>57</sup>

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<sup>52</sup> Petitioner's postconference brief, p. 12.

<sup>53</sup> Respondent TricorBraun's postconference brief, p. 4 and Respondent Berlin's postconference brief, p. 3.

<sup>54</sup> *Glass Containers from China, Investigation Nos. 701-TA-630 and 731-TA-1462 (Preliminary)*, USITC Publication 4996, November 2019, pp. 11-12.

<sup>55</sup> *Ibid.*

<sup>56</sup> Petitioner's Prehearing Br, p. 5.

<sup>57</sup> Berlin Packaging Prehearing Br., p. 4. Neither TricorBraun nor YGQ address the definition of domestic like product in their arguments.



## Part II: Conditions of competition in the U.S. market

### U.S. market characteristics

Glass containers are generally used to transport and store food products, beverages, and other liquids, as well as nutraceuticals.<sup>1</sup> The glass containers subject to these investigations have a nominal capacity of 0.059 liters to 4.0 liters<sup>2</sup>, can be clear or colored, and may or may not have functional elements such as embossing, etching, handles, or labels. The vast majority of glass containers are intermediate goods: either bottles used to transport and store alcoholic and non-alcoholic beverages (including beer, wine, other spirits, carbonated drinks, soft drinks, chilled coffee-based drinks, etc.) or jars to transport and store food products such as jams and jellies or baby food. Food jars are typically less-specialized products and easier to produce than containers such as wine bottles. A small proportion are end-use consumer goods, such as jars used in home-canning or for home décor. According to an industry publication, there was a double digit decrease of imports of empty food and beverage glass containers from China in 2019.<sup>3</sup> Glass containers are typically sold by the gross or case.<sup>4</sup>

Approximately \*\*\* percent of the domestic glass container market was supplied in 2019 by domestic producers, and the three largest domestic producers are estimated to account for \*\*\* percent of reported domestic production. Imports from China accounted for \*\*\* percent of the U.S. apparent consumption in 2019 and nonsubject sources accounted for \*\*\* percent. U.S. producers' share decreased by \*\*\* percentage points between 2017 and 2019. Gallo is estimated to account for approximately 22 percent of the U.S. wine market share by volume.<sup>5</sup> Demand across various parts of the glass container market fluctuate based on

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<sup>1</sup> "Nutraceuticals" are reportedly "everything in a GNC or the vitamin section of your local drug store" and "may be defined as a substance, which has physiological benefit or provides protection against chronic disease." Conference transcript, p. 129 (Carruthers) and Nasri, Hamid, et al. "New Concepts in Nutraceuticals as Alternative for Pharmaceuticals," International Journal of Preventative Medicine, December 2014, p. 1487.

<sup>2</sup> A witness for the domestic industry indicated that there is no domestic production of glass containers outside this size range. Conference Tr. at 63 (Shaddox).

<sup>3</sup> DeFife, "Packaging Outlook 2020: Glass Packaging Overview, Packaging Strategies", March 20, 2020, <https://www.packagingstrategies.com/articles/95431-packaging-outlook-2020-glass-packaging>, retrieved May 11, 2020.

<sup>4</sup> Case packs can vary in number of containers, but often are 6, 12, or 24 containers. A gross is always 144 containers.

<sup>5</sup> Forbes. Zimmerman, Liza B. "[Constellation Selling Lower-End Wine Brands to Gallo in \\$1.7 B Deal: Why It's A Win-Win](#)", April 4, 2019.

variations in end-use patterns for the products that glass containers store, such as demand for beer, wine, and agricultural products. Overall, apparent U.S. consumption of glass containers decreased by \*\*\* percent between 2017 and 2019.

Availability and timely delivery of the product to customers are reportedly very important in the glass container industry, as the inability of a manufacturer to store or transport its product may cause major disruptions in its production processes which affect downstream products for glass containers.<sup>6</sup> Glass container manufacturers maintain or may open warehouses close to important end users in order to supply important customers, which often require just-in-time delivery.<sup>7</sup>

## U.S. purchasers

The Commission received 11 usable questionnaire responses from firms that had purchased glass containers during January 2017-December 2019.<sup>8 9</sup> Four responding purchasers are distributors, three are retailers, two are food manufacturers, one is a spirits bottler, and \*\*\*. In general, responding U.S. purchasers were located in the Northeast, Midwest, Mountains, and Pacific Coast. The five largest purchasers of glass containers in 2019 were \*\*\*.

## Channels of distribution

In 2019, \*\*\* percent of U.S. producers' shipments of glass containers were made to alcoholic beverage manufacturers and \*\*\* percent were sold to other beverage manufacturers (table II-1). Food manufacturers accounted for \*\*\* percent of U.S. producers' shipments in 2019. The petitioner noted that it maintains a website portal for smaller purchases of food jars or beer bottles.<sup>10</sup> Between 2017 and 2019, U.S. producers' U.S. shipments to distributors to decreased while those to end users decreased by \*\*\* percent. \*\*\*.

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<sup>6</sup> Conference transcript, pp. 168-169 (Bottene).

<sup>7</sup> Conference transcript, p. 84 (Shaddox).

<sup>8</sup> The following firms provided purchaser questionnaire responses: \*\*\*.

<sup>9</sup> Of the responding purchasers, all eleven purchased domestically produced glass containers, all eleven purchased imports of the subject merchandise from China, and 9 purchased imports of glass containers from other sources.

<sup>10</sup> Conference transcript, pp. 49-50 (Paulet and Shaddox). Petitioner Ardagh closed the wine portion of its portal around March 2018 since it "wasn't very successful." Conference transcript, p. 64 (Shaddox).

The next largest end-use category was large food manufacturers, at \*\*\* percent, and accounting for a 1.4 percentage point increase from \*\*\* percent in 2017.

**Table II-1**  
**Glass containers: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, January 2017-December 2019**

\* \* \* \* \*

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

Importers shipped most of the glass containers they imported from China to food manufacturers, alcoholic beverage manufacturers, and distributors during 2017-19. Shipments to distributors increased from 2017 to 2018 before declining in 2019. All reported U.S. shipments of imports from China were to small/medium end-user manufacturers versus large manufacturers for all segments.<sup>11</sup> \*\*\*.

Between 2017 and 2019, the share of importers' shipments of glass containers from China to retailers, other beverage and food manufacturers, and other end users increased, while the share sold to distributors and alcoholic beverage manufacturers decreased. The shares shipped to the two largest channels, alcoholic beverage manufacturers and food manufacturers and other end users combined decreased from \*\*\*, while the shares shipped to retailers, distributors, and other beverage manufacturers combined increased from \*\*. In 2019, distributors, alcoholic beverage manufacturers, other beverage manufacturers, and food manufacturers and other end users accounted for between 14 percent and 40 percent of shipments.<sup>12</sup>

Shipments of glass containers from Mexico were represented more equally across channels of distribution: \*\* percent for alcoholic beverage manufacturers, \*\* percent for other beverage manufacturers, and \*\* percent for food manufacturers and other end users. This represents, respectively a \*\* percentage point increase, \*\* percentage point decrease, and \*\* percentage point increase from 2017. \*\* shipments to retailers for shipments of glass containers from Mexico.

Food manufacturers and other end users accounted for the largest share of shipments of glass containers from all other sources, increasing \*\*. The majority of this increase occurred as the share of shipments to alcoholic and other beverage manufacturers declined.

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<sup>11</sup> Importers were requested to identify the smallest customer and quantity supplied. Large is defined as 50,000 gross for beer endusers, 100,000 for spirit and other beverage end users, 150,000 for wine end users, 200,000 for other end users, and 500,000 for food end users.

<sup>12</sup> The amount sold to retailers increased slightly but never exceeded 3.0 percent in any period.

## Geographic distribution

U.S. producers reported selling glass containers to all regions in the contiguous United States (table II-2). Importers reported selling to all regions of the United States as well, with the Pacific Coast – where most wine production in the United States is concentrated<sup>13</sup> – and the Midwest being serviced by the greatest number of importers (19 of 24 and 19 of 23, respectively). Many small- to medium-sized wineries do not typically have their own bottling facilities, so they contract with mobile filling stations to bottle their wine; these mobile filling stations may need to be booked up to a year in advance.<sup>14</sup>

For U.S. producers, \*\*\* percent of sales were within 100 miles of their production facility, \*\*\* percent were between 101 and 1,000 miles, and \*\*\* percent were over 1,000 miles. Importers 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. The vast majority of petitioner Ardagh’s customers require just-in-time delivery, which requires maintaining enough inventory to service them.<sup>15</sup>

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

Region	U.S. producers	Importers
Northeast	3	18
Midwest	4	19
Southeast	4	18
Central Southwest	5	16
Mountain	4	15
Pacific Coast	5	19
Other	3	5
All regions (except Other)	3	14
Reporting firms	6	21

Note: Other includes U.S. markets, such as AK, HI, PR, and VI.

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

<sup>13</sup> Conference transcript, p. 75 (Shaddox).

<sup>14</sup> Conference transcript, p. 142 (Wessel).

<sup>15</sup> Conference transcript, p. 84 (Shaddox).

## Supply and demand considerations

### U.S. supply

Table II-3 provides a summary of the supply factors regarding glass containers from U.S. producers and from China.

**Table II-3**  
**Glass containers: Supply factors that affect the ability to increase shipments to the U.S. market**

Country	Capacity (millions of gross)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2019 (percent)		Able to shift to alternate products
	2017	2019	2017	2019	2017	2019	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	219.6	189.6	84.0	83.0	15.9	21.5	98.0	***	0 of 6
China	7.5	7.7	82.3	85.1	15.7	11.8	59.6	***	1 of 8

Note: Responding U.S. producers accounted for almost all of U.S. production of glass containers in 2019. Responding foreign producer/exporter firms accounted for less than 25 percent of U.S. imports of glass containers from China during 2019. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

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

### Domestic production

Based on available information, U.S. producers of glass containers have the ability to respond to changes in demand with small-to-moderate changes in the quantity of shipments of U.S.-produced glass containers to the U.S. market. The main contributing factor to this degree of responsiveness of supply is an increased level of inventories. Factors mitigating responsiveness of supply include declining capacity,<sup>16</sup> available production capacity, limited ability to shift export shipments from alternate markets, no ability to shift production to or from alternate products, and a potentially limited ability to shift between different container types within the scope of these investigations.

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<sup>16</sup> Driven by prolonged shutdowns or curtailments (five firms) and plant closings (two firms).

U.S. production declined more than capacity declined, leading to a slight decrease in capacity utilization between 2017 and 2019. During that time, the ratio of inventories to total shipments increased by \*\*\* percentage points. A certain level of inventories are necessary, however, to service certain portions of the glass container market since furnaces can only produce one color of glass at a time, and certain colors and bottle types are only run at particular times of the year. In addition, the vast majority of petitioner Ardagh's customers require just-in-time delivery, which requires maintaining sufficient inventory to service them; U.S. producer inventories consisted of \*\*\* percent of total shipments in 2019.<sup>17</sup> Export shipments decreased from \*\*\* percent of total shipments in 2017 to \*\*\* percent in 2019.

Some domestic production facilities are focused on making certain types of containers, and no producer indicated the ability to make any out-of-scope products using the same equipment and machinery used to make glass containers. Petitioner Ardagh's representatives testified that it may be able to switch facilities' production among container types: "...most of our West Coast facilities are wine producing facilities, because that's the wine market for the United States. But other locations that produce wine {bottles} in the same plant also produce beer {bottles}, also produce food product {containers}. It's just dependent on the demand... {In Seattle} we also do juice bottles. We have done beer bottles in the past. So the asset that we have is not as flexible as one could like, but it is possible to switch from one type of container to another with not that much difficulty." Ardagh highlighted this issue in its annual report in 2019, noting it "reduced production capacity in its Glass Packaging North America division by over 10%" and "converted production capacity from the mass beer sector to {food, wines, and spirits}"<sup>18</sup>.

Some beverage producers manufacture some of their own glass bottles. Ardagh reported that "companies which satisfy some of their requirements through self-manufacture include AB InBev and Gallo, which manufacture glass packaging in the United States, and AB InBev and Constellation Brands, which produce glass packaging in Mexico."<sup>19</sup>

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<sup>17</sup> Conference transcript, p. 84 (Shaddox).

<sup>18</sup> Ardagh Group S.A., "Annual Report of the Foreign Private Issuer Pursuant to Section 13 or 14(d) of the Securities and Exchange Act of 1934 for the Fiscal Year Ended December 31, 2019", p. 47, <https://www.ardaghgroup.com/userfiles/files/investors/Ardagh-Group-SA-Annual-Report-2019-full.pdf>, accessed April 21, 2020.

<sup>19</sup> Ardagh's Form 20-F, Petitioner's postconference brief, exh. 17, p. 11.



The majority of domestic production is concentrated in the manufacture of beer bottles. According to industry publications, beer bottles accounted for 54 percent of domestic glass container production by volume in the first three quarters of 2018, a decrease of 2 percent from 2017.<sup>20</sup> The ability to switch between types of glass containers being produced may require more than just changing out a mold. To make a certain bottle shape, a specific mold is needed, which can require a case minimum, and \*\*\*. Molten glass also has to be fully drained from a furnace and machinery to change the underlying batch, and sometimes new machines are necessary. If not available in that plant, molds can be shipped across the country.<sup>21</sup>

### **Subject imports from China**

Based on available information, producers of glass containers from China have the ability to respond to changes in demand with moderate changes in the quantity of shipments of glass containers to the U.S. market. The main contributing factors to this degree of responsiveness of supply are augmented by the ability to shift shipments from alternate markets to the United States, and relatively high inventories of imported Chinese containers held by importers (\*\*\* percent as a ratio to U.S. shipments of imports in 2019). The main contributing factors mitigating the responsiveness of supply are the inability to shift production to or from alternate products and a potential inability to shift between in-scope container types.

Reported glass container-making capacity in China increased by \*\*\* percentage points between 2017 and 2019. After the capacity expansion, capacity utilization increased from \*\*\* percent between 2017 and 2019. Only two responding glass container producers in China reported manufacturing other products on the same equipment as glass containers during the period of investigation \*\*\*. \*\*\*. Nearly \*\*\* percent of China's shipments of glass containers were made to its home market. The United States was China's main export destination, and exports to

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<sup>20</sup> Cattaneo, "2019 Packaging Outlook: Glass Packaging," Packaging Strategies, <https://www.packagingstrategies.com/articles/91045-packaging-outlook-glass-packaging>, retrieved October 28, 2019.

<sup>21</sup> Conference transcript, p. 76 (Paulet).

countries other than the United States were smaller (\*\*\*) than its share of exports to the U.S. in 2019 by \*\*\* percent.

### ***Impact of section 301 investigation and tariffs***<sup>22</sup>

Firms were asked whether the implementation of tariffs in the section 301 investigation in response to Chinese trade practices influenced the glass container market in the United States. Three of six responding U.S. producers and 19 of 25 responding importers indicated that it had some impact. The petitioner stated that there were effects of the section 301 tariffs by the end of 2019, while representatives for respondents stated that section 301 tariffs helped to explain, in part, a decline in subject import volume from 2018 to 2019.<sup>23 24</sup> Purchaser \*\*\* reported it decreased its purchases from China due to section 301 tariffs.

As seen in table II-4, among the changes reported by most importers were an increase in the U.S. supply of glass containers and an increase in supply from nonsubject sources. Of the three U.S. producers indicating an impact, two reported no impact on prices, 14 of 17 responding importers reported that prices had increased due to the section 301 tariffs. U.S. producer \*\*\* reported that the section 301 tariffs have not affected the pricing due to exclusion requests and the temporary status of the tariffs.

Importers' responses regarding U.S. supply, overall demand, and the price of raw materials were more evenly split between increases, fluctuating, and no change. Most responding purchasers noted that it had either caused fluctuations in supply from U.S. producers or did not have an effect, although importer/purchaser \*\*\* reported it had decreased purchases from China in response to section 301 tariffs. Furthermore, a representative on behalf of TricorBraun stated that no exclusions to section 301 tariffs have been granted for glass container products and there are no further pending exclusion requests for such products, which makes section 301 tariffs widely applicable.<sup>25</sup>

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<sup>22</sup> For more information on the Section 301 proceeding, please see Part I.

<sup>23</sup> Hearing transcript, p. 23 (Pickard).

<sup>24</sup> Hearing transcript, p. 96 (Dougan).

<sup>25</sup> Hearing transcript, p. 98 (Wessel).

**Table II-4**  
**Glass containers: Firms' responses regarding impact of 301 investigation**

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Impact on U.S. supply of glass containers:				
U.S. producers	---	2	---	1
Importers	6	6	---	4
Impact on China's supply of glass containers:				
U.S. producers	---	---	3	---
Importers	---	2	14	1
Impact on supply from sources other than China:				
U.S. producers	2	1	---	---
Importers	13	3	---	1
Impact on prices:				
U.S. producers	---	2	---	1
Importers	15	3	1	---
Impact on overall demand for glass containers:				
U.S. producers	---	2	1	---
Importers	4	9	3	2
Impact on glass container raw materials:				
U.S. producers	1	2	---	---
Importers	6	7	---	3

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

### Imports from nonsubject sources

Nonsubject imports accounted for \*\*\* percent of the value of total U.S. imports of glass containers in 2019. The largest source of nonsubject imports during 2017-19 was Mexico, which accounted for \*\*\* percent of imports in 2019. \*\*\* reported importing glass containers from Mexico.<sup>26</sup> \*\*\* reported purchases from Mexico, while importer Owens-Illinois maintains a distribution facility in the U.S. to import glass containers from Mexico.<sup>27</sup>

### Supply constraints

All six U.S. producers but only 10 of 25 U.S. importers reported that no supply constraints occurred in the glass container market during 2017-19. Producer \*\*\* reported

<sup>26</sup> \*\*\*.

<sup>27</sup> Owens-Illinois's 2019 Form 10K, p. 3. <https://investors.o-i.com/static-files/4aec4e4a-352c-4ea8-8e2a-8fe38a183df6>, retrieved May 15, 2020.

having made “customary and ordinary refusals as a result of unreasonable lead times from customers and inaccurate forecasts.” Six of eleven purchasers reported providing suppliers with forecasts, with most purchasers reporting a 12-month forecast. In 2019, purchaser \*\*\* reported its share of purchases exceeded forecasts by 25 percent. Furthermore, U.S. producer \*\*\* reported that \*\*\* purchases exceeded forecasts by up to 15 percent in 2019, and that \*\*\* exceeded its annual forecast in 2018 and increased its projected 2019 volume.<sup>28</sup>

Importer \*\*\* reported having to cancel orders and losing customers due to domestic stock not being available and Owens-Illinois not having glass available on time. Importer \*\*\* reported supply constraints from U.S. producers of glass containers and high minimum production runs. It also reported a supply shortage in 2009 from Leone Group (now owned by Ardagh) due to a broken furnace. Purchaser \*\*\* reported domestic capacity and supply constraints, namely a domestic supplier not being able to fulfill production runs on two instances in 2019. It also reported not being able to meet a high minimum order quantity from the domestic industry and quality issues leading to glass unavailability on one product. It noted that these circumstances led to inability to fulfill customer orders or customer shortages.

\*\*\*. \*\*\*.

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<sup>28</sup> U.S. producer questionnaire response at II-16a and Petitioner’s prehearing brief, pp. 92-93.

## New suppliers

Two of eight responding purchasers indicated that new suppliers entered the U.S. market since January 1, 2017. Both purchasers cited Arglass (a new U.S. production joint venture between Yamamura Nihon Yamamura Glass Co., Ltd. and Cambium Arglass, LLC) as a new supplier for a facility scheduled to be completed in 2021. Arglass is planning to position itself to fulfill the needs of specialty and small-batch producers, especially in the spirits sector, for example with shorter cost-competitive runs, emergency batches, and customized products.<sup>29</sup>

## U.S. demand

The demand for glass containers is derived mainly from the demand for the food or beverages which are stored and transported in the containers. Based on available information, the overall demand for glass containers is likely to experience small changes in response to changes in price. The main contributing factors are the relatively low cost share in most of the items which glass containers are used, the derived demand nature of the glass container market from the beer, wine, and food industries, and the preference of consumers for glass containers for a number of reasons, including its recyclability and preserving the freshness and flavor of food.<sup>30</sup> At the staff conference, representatives of Ardagh stated that this derived demand is dependent on consumers' tastes and fluctuate with preferences within those markets: wine demand is "vibrant" and sales of Frappuccino-type drinks are "resurgent," but demand for beer is shifting from bottles to cans.<sup>31</sup> Glass containers may provide a longer shelf life for the food or beverage stored inside than plastic or display a higher-end or premium look.<sup>32</sup> Demand for glass containers is also somewhat driven by variations in the supply of

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<sup>29</sup> Global Atlanta, "Japan-Backed Factory in South Georgia Aims to Offset Glass Bottle Imports," August 9, 2019. <https://www.globalatlanta.com/japan-backed-factory-in-south-georgia-aims-to-offset-glass-bottle-imports/>, retrieved April 20, 2020.

<sup>30</sup> "Why glass is coming back in fashion for food makers," Smartbrief.com, October 23, 2019, <https://www.smartbrief.com/original/2019/10/why-glass-coming-back-fashion-food-makers-0>, retrieved April 14, 2020.

<sup>31</sup> Conference transcript, pp. 45-46 (Shaddox and Paulet).

<sup>32</sup> Conference transcript, p. 42 (Paulet) and pp. 143-144 (Brosch). "Consumers continue to see glass as an eco-friendly package that is inert and ocean-friendly, 100 percent recyclable as well as reusable. Glass containers require no plastic or chemical liner, still perceived as best for taste and superior for creating premium and specialty experiences." Cattaneo, "2019 Packaging Outlook: Glass Packaging," Packaging Strategies, <https://www.packagingstrategies.com/articles/91045-packaging-outlook-glass-packaging>, retrieved April 17, 2020.

agricultural products for which glass containers are used, e.g., to keep fresh food or wine from spoiling. This, along with increased demand for beverages in glass bottles during warm weather, and to a lesser extent, holidays near the end of the year, makes demand for glass bottles somewhat seasonal.<sup>33</sup>

### **End uses and cost share**

The demand for glass containers is mainly derived from the demand for the food, beverage, or other items that are stored and/or transported in the containers. The largest drivers of demand for glass containers are non-alcoholic beverages and alcoholic beverages such as beer, wine and spirits, as well as for food.<sup>34</sup> U.S. producers reported end uses such as beer, wine, spirits, and food products. Importers reported end uses as food storage, non-food storage (such as personal care products), and decoration. Purchasers reported end uses such as spirits and food products. Glass containers accounts for a somewhat small share of the cost of the end-use products in which it is used. \*\*\* noted that glass containers account for approximately 4 percent of the cost of a bottle of wine and 18 percent of the cost of other beverages. \*\*\* also reported that glass containers would account for 18 percent of the cost of food, non-alcoholic beverages, and other products. \*\*\* estimated that they would account for 15 percent of food and non-food storage. Importer \*\*\* estimated they would account for 15 percent of alcoholic beverages, and 20 percent in food storage and non-alcoholic beverage uses, while it estimated 83 percent for food storage and 84 percent for spirits. Importer \*\*\* estimated the cost share to be much higher, at 45 percent for the cost of spirits.<sup>35</sup>

### **Business cycles and distinct conditions of competition**

Five of six responding U.S. producers, 14 of 25 importers, and \*\*\* reported that the market was subject to business cycles, while few reported distinct conditions of competition (no U.S. producers, three importers, and one purchaser). Specifically, purchaser

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<sup>33</sup> Petitioner's postconference brief, p. 14, and conference transcript, p. 150 (Brosch).

<sup>34</sup> Conference transcript, p. 141 (Carruthers). Food accounted for 20 percent of glass container shipments last year globally. "Why glass is coming back in fashion for food makers," Smartbrief.com, October 23, 2019, <https://www.smartbrief.com/original/2019/10/why-glass-coming-back-fashion-food-makers-0>, retrieved April 17, 2020.

<sup>35</sup> For glass containers sold without contents, Importer \*\*\* estimated that the glass containers represent 99 percent of the cost of beverage dispensers and decorative canisters. Importer \*\*\* estimated the costs for glass canisters to be 90 percent.

\*\*\* reported glass furnace availability as a distinct condition of competition. The unique condition most frequently mentioned by importers affecting the glass container market was the seasonality of demand due to harvest seasons and the varying sizes of harvests.

Importer \*\*\* explained that there have been three back-to-back bumper crops for wine, which has driven retail prices down for wine, forcing wineries to find ways to reduce costs. Importers \*\*\* noted a movement in customers' preferences toward cans from bottles. Constellation Group's seasonality for beer sales peak in the spring and summer.<sup>36</sup> Similarly, \*\*\* noted a movement toward cans for both national and craft beers. Importer \*\*\* reported that multiple U.S. manufacturers have "changed their sales strategy by discontinuing and/or severely limiting sales to domestic distributors like our company and are now selling much more product directly to end user wineries."

### **Demand trends**

Both responding U.S. producers reported a decrease in the overall U.S. demand for glass containers since January 1, 2017, whereas importers and purchasers reported an increase (table II-5). U.S. producers, importers, and purchasers generally reported a decrease in demand for glass containers used in the beer industry but increases in demand from the wine, spirits, other beverages, and food industries. \*\*\*. Producer \*\*\* reported increased demand during the period of investigation in other beverages due to more coffee, kombucha, and tea products on the market. Most U.S. producers, importers, and purchasers reported an increase in demand outside of the United States. Four importers reported a decrease in the demand for beer during the period of investigation and reported consumers' switch toward beer in aluminum cans as taking market share from glass.

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<sup>36</sup> Constellation Group. "2019 Annual Report," p. 7. <http://cbrands.gcs-web.com/static-files/1de30df1-ccc4-4b10-9d6a-1c86f66c5f72>

**Table II-5**  
**Glass containers: Firms' responses regarding U.S. demand and demand outside the United States**

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand inside the United States--U.S. producers:				
Beer	---	---	4	---
Wine	1	---	1	---
Spirits	2	---	---	1
Other beverages	2	---	1	---
Food	1	---	1	1
Other end users	---	---	1	1
Overall	---	---	2	---
Importers:				
Beer	---	---	5	2
Wine	7	1	1	1
Spirits	9	---	---	1
Other beverages	4	1	2	2
Food	4	---	1	6
Other end users	3	2	1	6
Overall	5	1	3	6
Purchasers:				
Beer	---	---	6	---
Wine	3	2	---	---
Spirits	5	---	---	---
Other beverages	4	1	1	---
Food	3	2	1	1
Other end users	3	2	---	2
Overall	3	1	2	1
Demand outside the United States:				
U.S. producers	2	1	---	---
Importers	6	2	---	3
Purchasers	4	1	---	---

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



## ***Beer shipments***

The largest proportion of U.S. producers' shipments were made to the beer industry. According to the Beer Institute<sup>37</sup>, consumption of beer in the United States declined by 2.4 percent between 2016 and 2018, from 6,440 million gallons to 6,285 million gallons. Consumption was 101.4 million gallons in the first half of 2019, compared to 102.3 million gallons in the first half of 2018. Domestic beer consumption decreased by a 4.2 percent total during this time, from 5,406 million gallons in 2016 to 5,179 million gallons in 2018. The decrease in shipments of domestic beer bottles correlates with this decline, which decreased by 11.0 percent between 2016 and 2018 (from 1,470 million gallons to 1,309 million gallons), and was 13.1 percent lower in the first half of 2019 compared with the first half of 2018.<sup>38</sup> Overall, large brewer market share decreased in 2019 by 2 percent, while craft brewer (small and independent brewer) reached 13.6 percent market share by volume.<sup>39</sup> U.S. shipments of imported beer increased in each period and in all types of containers. U.S. shipments of imported beer in bottles increased by 4.5 percent in during 2016-18, reaching 713 million gallons in 2018, and were 0.7 percent higher in the first half of 2019 compared with the first half of 2018 as well. This increase, along with the decrease in domestic shipments of beer in bottles, increased the market share for imported bottled beer from 31.7 to 35.3 percent, and decreased the market for domestic bottled beer from 68.3 to 64.7 percent.

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<sup>37</sup> Data available until 2018.

<sup>38</sup> This decrease is equivalent to a decrease of nearly 12 million gross beer bottles in 2016-18, and nearly 7.5 million gross beer bottles lower in the first half of 2019 than the first half 2018.

<sup>39</sup> Brewers Association. "National Beer Sales & Production Data: Summary." Retrieved May 15, 2020. <https://www.brewersassociation.org/statistics-and-data/national-beer-stats/>

**Table II-6**

**Beer: Volumes of domestic and imported beer sold in the United States, by container type, 2016-18, January to June 2018, and January to June 2019**

Item	Period				
	Calendar year			January to June	
	2016	2017	2018	2018	2019
<b>Volume of reported shipments (million gallons)</b>					
<b>Shipments of domestic beer in:</b>					
Bottles	1,470	1,416	1,309	678	589
Cans	3,347	3,281	3,293	1,626	1,689
Draft	588	594	577	299	283
Total	5,406	5,290	5,179	2,603	2,561
<b>Share of reported shipments (percent)</b>					
<b>Shipments of domestic beer in:</b>					
Bottles	68.3	66.7	64.7	65.1	61.6
Cans	92.5	92.1	91.4	90.9	90.8
Draft	88.1	88.1	87.5	87.7	86.6
Total	83.9	83.2	82.4	82.1	81.5
<b>Growth of reported shipments from prior period (percent)</b>					
	<b>2016-18</b>	<b>2016-17</b>	<b>2017-18</b>	<b>J-J 2018 to J-J 2019</b>	
<b>Shipments of domestic beer in:</b>					
Bottles	▼(11.0)	▼(3.7)	▼(7.6)	▼(13.1)	
Cans	▼(1.6)	▼(2.0)	▲0.4	▲3.9	
Draft	▼(1.9)	▲1.0	▼(2.9)	▼(5.4)	
Total	▼(4.2)	▼(2.1)	▼(2.1)	▼(1.6)	
Total shipments	▼(2.4)	▼(1.3)	▼(1.1)	▼(0.9)	

Note: Volumes originally reported in 31-gallon barrels of beer.

Source: The Beer Institute National Packaging Report, <https://www.beerinstitute.org/industryinsights/packaging-mix/>.

### ***Wine and spirits shipments***

Both wine and spirits volumes in the U.S. market have increased since 2016, with spirits increasing more than wine. Wine entering the market increased slightly by 0.6 percent between 2016 and 2017 (from 423.2 million 9L case equivalents to 425.8 million 9L case equivalents) and 1.5 percent between 2017 and 2018 (to 431.8 million 9L case equivalents) and was projected to be 409 million 9L cases in 2019, for an overall increase of 5.7 percent.<sup>40</sup> A wine grape “bumper crop”, or particularly large yield crop event, occurred in 2018; the number of recorded grapes

<sup>40</sup> These data include shipments of cider, which were approximately 23.6-23.7 million 9L case equivalents in both 2016 and 2018. Without these cider data, the volumes of total wine entering the market would be 399.6 million, 402.1 million (assuming the same volume of cider shipments in 2017 as in 2016 and 2018), and 408.1 million 9L case equivalents in 2016, 2017, and 2018. Bw166 (a beer and wine advisory service), “How Big Is the U.S. Wine Market Really”, <https://www.bw166.com/2020/01/20/how-big-is-the-u-s-wine-market-really/>, January 20, 2020.

crushed in California in 2018 yielded 4.282 thousand tons, a 6.62 percentage point increase compared to 2017.<sup>41</sup> Wine consumption estimates amounted to 33 million hectoliters (mhl) in 2019, the equivalent of 366.7 million case equivalents, with domestic demand increasing by 1.8 percentage points from 2018, and 3 percentage points from 2016 to 2017.<sup>42</sup> U.S. wine import volume estimates in 2019 amounted to 12.3 mhl by volume (136.7 million case equivalents), an increase from 11.5 mhl in 2018.

Spirits volumes increased by 3.5 percent from 2016 to 2017 (from 221.3 million 9L case equivalents to 229.0 million 9L case equivalents) and by 2.9 percent from 2017 to 2018 (to 235.6 million 9L case equivalents), for an overall increase of 6.5 percent.<sup>43</sup> <sup>44</sup> In 2019, the spirits segment was estimated to have a 37.8 percent market share of alcohol by supplier gross revenues, a 1.2 percentage point increase from 2017. U.S. spirits markets volumes were driven by vodka and whiskey, with whiskey being driven by American high-end premium whiskey.<sup>45</sup>

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<sup>41</sup> North Bay Business Journal. Jeff Quackenbush. "North Coast wine grape harvest hits record \$2B in 2018 as grape, bulk-wine markets cool in 2019", April 10, 2019, <https://www.northbaybusinessjournal.com/northbay/napacounty/9482261-181/sonoma-napa-mendocino-lake-wine-grape-harvest>. California Department of Food and Agriculture and USDA's National Agricultural Statistics Service, "Grape Crush Report", April 10, 2019 p. 2.

<sup>42</sup> "Trends in the main wine consuming industries," p. 9. April 2020.

<sup>43</sup> bw166 (a beer and wine advisory service), "Wine shipments into US reach 400 million cases for calendar 2016. Beer, wine, and spirits all show growth," January 15, 2017, <https://bw166.com/2017/01/15/beer-wine-spirits-show-growth-calendar-2016-wine-shipments-us-reach-400-million-cases/>, retrieved April 17, 2020, and bw166, "U.S. beverage alcohol spending hits \$253.8 billion in 2018, +5.1% versus 2017," January 13, 2019, <https://bw166.com/2019/01/13/u-s-beverage-alcohol-spending-hits-253-8-billion-in-2018-5-1-versus-2017/>, retrieved April 17, 2020.

<sup>44</sup> Approximately 78 percent of wine in the year ending June 15, 2019 was sold using glass packaging. Wine Analytics Report, "Packaging innovations behind sales shift," <https://wineanalyticsreport.com/report/july-2019-wine-packaging/>. Based on this percentage, and 12 750mL bottles per case, these data would be equivalent to 26.0 million gross bottles of wine (excluding cider) in 2016 and 26.5 million gross bottles of wine (excluding cider) in 2018. For spirits, based solely on 12 750mL bottle equivalent, the data would be approximately 14.4 million gross bottles in 2016 and 15.3 million gross bottles in 2018. Based on 12-ounce bottle equivalents for cider, the data would be equivalent to 4.32 million gross bottles in 2016 and 4.34 million gross bottles in 2018. Note, however, that wine, spirits, and cider bottles come in many different sizes. For example, wine bottles are available in sizes ranging from split bottles (187.5 mL, or ¼ a standard wine bottle) to Melchizedek or Midas size (30L or 40 standard wine bottles). Tilden, Marshall III, "Your Cheat Sheet to Wine Bottle Sizes," Wine Enthusiast, <https://www.winemag.com/2018/08/28/wine-bottle-sizes/>, retrieved May 7, 2020.

<sup>45</sup> Distilled Spirits Council. Ozgo, David M. "Annual Economic Briefing Support Tables – 2019," p. 1. February 12, 2020.

### ***Household food expenditures***

According to the United States Department of Agriculture, per-household food expenditures increased by 7.8 percent on a constant dollar basis between 2016 and 2018.<sup>46</sup> This data incorporates both food made at home and food consumed away from home.

### ***Kombucha***

Kombucha has increased the demand for glass containers in the “other beverages segment”. Kombucha can either have a low, naturally-occurring alcohol content as a byproduct of the natural fermentation process, or specifically be created as a “hard” alcoholic beverage.<sup>47</sup> \*\*\*. However, it stated that cans can also be considered as a substitute for glass containers for kombucha production. \*\*\*.

### ***Hard seltzer***

Another market trend affecting the demand for the beer segment of glass containers is growth of hard seltzer, which may be seen as an alternative to beer or other alcoholic drinks and has a similar alcohol content of around 4 to 6 percent.<sup>48</sup> Hard seltzer can include malt-based drinks, as well as drinks based on wine and spirits. Although demand for hard seltzer has been increasing, it is typically packaged in aluminum cans. Sales in 2019 increased by about 200 percent.<sup>49</sup> According to the IWSR, “increasingly, hard seltzer producers are pulling consumers from other beverage alcohol category, not just beer”, and consumption is forecasted to triple by 2023.<sup>50</sup> Importer \*\*\* reported that decreased demand in the glass containers

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<sup>46</sup> United States Department of Agriculture, [https://www.ers.usda.gov/webdocs/DataFiles/50606/normalized\\_food\\_expenditures.xlsx?v=2175.5](https://www.ers.usda.gov/webdocs/DataFiles/50606/normalized_food_expenditures.xlsx?v=2175.5), retrieved April 17, 2020.

<sup>47</sup> Food Business News. Slideshow: Alcoholic beverage innovation accelerating,” May 12, 2020, <https://www.foodbusinessnews.net/articles/16010-slideshow-alcoholic-beverage-innovation-accelerating>.

<sup>48</sup> “Hard seltzer is here to stay,” August 20, 2019, <https://www.vox.com/the-goods/2019/8/20/20812814/white-claw-truly-hard-seltzer-explained>, retrieved May 27, 2020.

<sup>49</sup> Ibid.

<sup>50</sup> IWSR Drinks Market Analysis. “Hard Seltzer Consumption Forecasted to Triple by 2023: New IWSR Research Reveals that Over Half of US Alcohol Consumers Drink Hard Seltzers At Least Once a Week”.

market for “other beverage” during the period of investigation was due to the popularity of hard seltzer in aluminum cans.

### **Substitute products**

All five responding U.S. producers and six of eight responding purchasers indicated that there are substitutes for glass containers, but 12 of 21 responding U.S. importers indicated there were no substitutes. The most frequently mentioned substitute was aluminum cans, noted by 6 U.S. producers and 10 importers. Responding firms also reported the following substitutes: plastic/PET bottles (noted by 15 firms), flexible bags/pouches/packaging (5), boxed wine, metal containers, kegs, and ceramic (1 firm each). Importer \*\*\* reported that plastic bottles were particularly substitutable in places that do not accept glass (e.g., golf courses). Since glass containers are used to store and transport food and beverages, there are also indirect substitutes for glass containers when beverage or food consumers choose among products packaged in various types of containers. For example, if consumers choose to drink increasing amounts of hard seltzers typically sold in aluminum cans, or bottles of beer imported from countries that do not use glass bottles exported from the United States, it may take the place of beer sold in bottles, and therefore demand for glass bottles in the United States.<sup>51</sup>

### **Substitutability issues**

The degree of substitution between domestic and imported glass containers depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., availability, lead times between order and delivery dates, minimum order quantities, price discounts/rebates, reliability of supply, etc.). Based on available data, staff believes that there is moderate-to-high degree of substitutability between domestically produced glass containers and glass containers imported from China. Stock bottles, such as for beer, are more highly substitutable than specialty bottles, such as those used to hold premium spirits.<sup>52</sup> Although the quality of the glass containers produced in China is reportedly as high as or higher than those produced in the United States, differences in minimum order quantities, packaging types, design work, and availability can reduce substitutability.

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<sup>51</sup> Conference transcript, p. 68 (Paulet) and p. 151 (Brosch).

<sup>52</sup> The specialty bottles market includes design attributes such as glass bottles with thick bases, embossing, and decorations (e.g. textures: labels, sleeves, inks, closures, etc.). Cattaneo, “2019 Packaging Outlook: Glass Packaging,” Packaging Strategies, <https://www.packagingstrategies.com/articles/91045-packaging-outlook-glass-packaging>, retrieved April 17, 2020.

## Knowledge of country sources

Eleven purchasers indicated they had marketing/pricing knowledge of domestic product, 11 of product from China, 6 of product from Mexico, and 10 of other product nonsubject sources.

As shown in table II-6, most purchasers always or usually make purchasing decisions based on the producer while sometimes or never making their decision based on the country of origin. Of the two purchasers that reported that they always make decisions based the manufacturer, \*\*\* cited its decision was based on the quantity and timeline aligned with customer demand and \*\*\* cited matching customers to supplier capabilities.

**Table II-6**

**Glass containers: Purchasing decisions based on producer and country of origin**

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	2	4	2	2
Purchaser's customers make decision based on producer	---	---	2	7
Purchaser makes decision based on country	1	3	3	4
Purchaser's customers make decision based on country	---	---	4	6

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 glass containers were quality (11 firms), price/cost (7 firms), and availability/supply/lead time (6 firms) as shown in table II-7. Quality was the most frequently cited first-most important factor (cited by 8 firms), price was the most frequently reported second-most important factor (three firms), and availability/supply/lead time was the most frequently reported third-most important factor (three firms).

**Table II-7**

**Glass containers: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor**

Factor	First	Second	Third	Total
Quality	8	2	1	11
Price / Cost	1	3	3	7
Availability / Supply / Lead time	1	2	3	6
Minimum order requirements	---	1	1	2
All other factors	1	3	3	NA

Note: Other factors include design, service, lead time/turnaround time, and flexibility.

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

## Minimum order quantities (MOQs)

Purchasers were asked to report the smallest minimum order sizes for standard and customized glass containers offered by Anchor, Ardagh, Gallo, Owens, and other sources since January 1, 2017 (Table II-8). Gallo was reported to have the largest minimum order size for both standard and customized glass containers, while Ardagh was reported to have the smallest minimum order size for standard glass containers, and Anchor was reported by purchasers to have the smallest minimum order size for customized glass containers.

**Table II-8**

**Glass containers: Purchasers' reported minimum order quantities by order type**

\* \* \* \* \*

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

Purchasers reported minimum order sizes from suppliers in China ranging from \*\*\* to \*\*\* since 2017. U.S. purchasers reported 62.2 percent of glass container purchases were larger than 10,000 gross. Four of 11 purchasers \*\*\* reported they had orders refused, declined, or turned down due to order size. Purchasers of glass containers reported difficulties in obtaining bottles from domestic producers in small-batch quantities. Purchaser \*\*\* reported \*\*\*. Two of 6 U.S. producers and 8 of 24 U.S. importers reported refusing, declining, or turning down a potential order due to order size. U.S. producer \*\*\* reported its smallest run in 2019 was \*\*\*, and \*\*\* reported its minimum order as \*\*\*. Eleven of 22 importers reported that their firms had an order size for which it could not economically import a new glass container design. Importer \*\*\* reported that order run sizes in China can range from \*\*\*. Importer \*\*\* reported its orders can run into \*\*\*. Importer \*\*\* reported at warehouse space becomes an issue for runs over \*\*\*, which would affect just-in-time delivery. Producer \*\*\*.<sup>53</sup>

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53 \*\*\*.

Respondent Berlin reported seven instances when it was unable to source containers domestically because it did not meet minimum order quantities, for which it argued totaled over a million containers, and reported one instance with a MOQ of over half a million containers.<sup>54</sup> \*\*\* noted that domestic minimum quantity requirements are all too high to be a viable option to supply their small and medium-sized clients.

A witness from distributor TricorBraun described the lifecycle for container end users as moving from small-batch needs, for which it needs to import glass containers, to large-batch needs, which it can source from U.S. producers. "So, oftentimes, it's a startup customer that you start with at zero and then you grow them -- as Berlin said, you grow them to the point where they either get acquired by a multi-national, which is a very common story or they get big enough where we can run them domestically because they're now at the minimum order quantities that will work in a domestic environment."<sup>55</sup> Respondent IGC stated that a similar growth occurred with its former client which grew from a startup in 2012 to the current top-selling producer of kombucha in the United States.<sup>56</sup>

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<sup>54</sup> Respondent Berlin's prehearing brief, pp. 18-19.

<sup>55</sup> Conference transcript, p. 140 (Carruthers).

<sup>56</sup> Respondent IGC's postconference brief, pp. 3-4.



## Lead times

Glass containers produced in the United States are primarily sold from inventories, while the majority of glass containers imported from China are produced-to-order. U.S. producers reported that \*\*\* percent of their commercial shipments were from U.S. inventories with an average lead time of \*\*\*. Over half (\*\*\*) of importers' commercial shipments were sold on a produced-to-order basis, with the remainder sold out of U.S.- or foreign-held inventories (\*\*\*).<sup>57</sup> The average lead time for importers' shipments from their U.S. inventories was 9 days,<sup>58</sup> and was 79 days from foreign inventories and 84 days for produced-to-order shipments. Petitioners noted the importance of just-in-time delivery for the vast majority of their sales.<sup>59</sup> Both respondents appearing at the staff conference maintain large warehouses in "wine country" that have their customers' bottles customized with labels and boxes ready to be filled.<sup>60</sup>

Due to the nature of the glass industry and melting furnaces, glass container manufacturers can only run one color of glass at a time per furnace. Producers were split on the ability to switch between colors. It takes a concerted effort to change from one color to another. As a result, certain color campaigns may only be run once per year.<sup>61</sup> The vast majority of petitioner Ardagh's customers require just-in-time delivery, which requires maintaining sufficient inventory to service them.<sup>62</sup> Importer TricorBraun reported having issues with missing the seasonal/agricultural-based two-week window for wine bottling after domestic producers' inability to meet committed lead times, which would create downstream inability to fill wine bottles.<sup>63</sup>

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<sup>57</sup> Twelve importers indicated they sell on a produced-to-order basis, 14 sell out of their U.S. inventories and 3 out of foreign-held inventories.

<sup>58</sup> Importer \*\*\* response, (\*\*\* lead time from U.S. inventory), was not used in this calculation.

<sup>59</sup> "Even if a customer may be bringing in product to a warehouse in advance of filling, they, like everybody else, are running an operation that requires specific you know you need to be on this dock door at this time to unload it because I've got my forklift driver doing three other things during the day, so there's expectations. Even if it's not coming in to be filled, there's still expectations for just-in-time deliveries based on requirements." Conference transcript, p. 84 (Shaddox). This lead time could be built into contracts and, since Ardagh maintains 60 to 90 percent of its inventory for its customers, the lead time it is based on the distance to the customer's filling facility. Ibid and conference transcript, p. 85 (Shaddox and Paulet).

<sup>60</sup> Conference transcript, p. 150 (Carruthers).

<sup>61</sup> Conference transcript, p. 149 (Carruthers).

<sup>62</sup> Conference transcript, p. 84 (Shaddox).

<sup>63</sup> Conference transcript, pp. 149 (Carruthers)- 150 (Brosch).

## Importance of specified purchase factors

Purchasers were asked to rate the importance of 19 factors in their purchasing decisions (table II-8). The factors rated as very important by more than half of responding purchasers were availability, quality meets standards, and reliability of supply (11 firms each), delivery time and product consistency (10 firms each), price (8 firms), and packaging type, technical support/service, and U.S. transportation costs (6 firms each).

**Table II-9**  
**Glass containers: Importance of purchase factors, as reported by U.S. purchasers, by factor**

Factor	Very important	Somewhat important	Not important
Availability	11	---	---
Quality exceeds industry standards	11	---	---
Reliability of supply	11	---	---
Delivery time	10	1	---
Product consistency	10	1	---
Price	8	3	---
Packaging type (e.g., case or bulk)	6	4	1
Technical support/service	6	3	2
U.S. transportation costs	6	5	---
Minimum order quantities	5	5	1
Delivery terms	4	7	---
Ability to exceed purchase forecasts	3	8	---
Payment terms	3	8	---
Quality meets industry standards	3	8	---
Specialized design availability	3	7	1
Product range	2	9	---
Container shape customization	2	6	3
Discounts offered	2	5	4
Container label customization	2	3	6

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

## Supplier certification

Nine of 11 responding purchasers require their suppliers to become certified or qualified to sell glass containers to their firm. Purchasers reported that the time to qualify a new supplier generally ranged from 30 to 60 days, with one purchaser reporting 365 days. One purchaser reported that a foreign supplier (\*\*\*) had failed in its attempt to qualify glass containers due to quality issues.

## Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2017 (table II-10); reasons reported for changes in sourcing included price, quality, design, selection, production capacity, and lead time. \*\*\* responding purchasers reported that they had changed suppliers since January 1, 2017. Specifically, firms dropped or reduced purchases from producer/importer Ardagh, importer Richards, and Paramount Global because of price. Purchasers added or increased purchases from Ampak \*\*\* and \*\*\* added Paramount because of price. Firms also reported decreasing purchases from Paramount Global because of quality.

**Table II-10**  
**Glass containers: Changes in purchase patterns from U.S., subject, and nonsubject countries**

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	---	3	2	3	3
China	---	2	4	4	1
Mexico	3	1	1	2	2
All other sources	1	2	4	4	---
Sources unknown	6	---	1	---	---

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

## Importance of purchasing domestic product

All nine responding purchasers reported that most or all of their purchases did not require purchasing U.S.-produced product. Two purchasers (\*\*\*) reported it was required by their customers (for \*\*\* of their purchases, respectively).

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

Purchasers were asked a number of questions comparing glass containers produced in the United States, China, nonsubject Mexico, and other nonsubject sources. First, purchasers

were asked for a country-by-country comparison on the same 19 factors (table II-12) for which they were asked to rate the importance.

The majority of purchasers reported glass containers produced in the United States and in China to be comparable on 12 factors, inferior with respect to 5 factors (ability to exceed purchase forecasts, availability, container shape customization, minimum order quantities, and price), and superior on 2 factors (delivery time and U.S. transportation costs). Most purchasers reported product from China to be comparable with all other sources on all factors. The majority of purchasers reported domestically produced glass containers and glass containers from Mexico to be comparable on all other factors except for: product range (two purchasers each reported “superior” or “comparable”), quality exceeds industry standards and U.S. transportation costs (for which the majority reported domestically produced glass containers were superior) and minimum order quantity and specialized design availability (for which the majority reported domestically produced glass containers were inferior). Most purchasers reported product produced in the United States to be superior on delivery time and U.S. transportation costs. The majority of purchasers reported product produced in the United States was inferior to product from all other sources on ability to exceed purchase forecasts, availability, minimum order quantities, product range, specialized design availability (five each), and container shape customization and price (four each).

**Table II-12**  
**Glass containers: Purchasers’ comparisons between U.S.-produced and imported product**

Factor	U.S. vs. China			U.S. vs. Mexico			China vs. Mexico		
	S	C	I	S	C	I	S	C	I
Ability to exceed purchase forecasts	1	2	7	1	3	1	3	---	2
Availability	---	4	6	---	5	---	2	3	---
Container label customization	---	5	3	---	4	---	---	2	2
Container shape customization	---	4	5	---	3	1	2	---	2
Delivery terms	2	8	---	2	3	---	1	3	1
Delivery time	7	1	2	2	3	---	2	---	3
Discounts offered	---	8	1	1	3	---	---	4	---
Minimum order quantities	---	4	6	---	2	3	---	3	2
Packaging type (e.g., case or bulk)	---	9	1	---	5	---	---	5	---
Payment terms	2	8	---	---	5	---	2	3	---
Price	---	3	7	---	4	1	1	2	2
Product consistency	1	7	2	1	4	---	1	4	---
Product range	---	7	3	2	2	1	1	3	1
Quality meets industry standards	1	8	1	---	5	---	---	5	---
Quality exceeds industry standards	2	6	2	3	2	---	1	4	---
Reliability of supply	1	5	4	---	4	1	2	3	---
Specialized design availability	---	5	4	---	---	3	---	4	---
Technical support/service	2	6	1	1	3	---	---	3	1
U.S. transportation costs	5	4	1	5	---	---	---	4	1

Table continued on next page.

**Table II-12—Continued**

**Glass containers: Purchasers' comparisons between U.S.-produced and imported product**

Factor	U.S. vs. All other			China vs. All other			Mexico vs. All other		
	S	C	I	S	C	I	S	C	I
Ability to exceed purchase forecasts	---	4	5	1	7	---	---	4	1
Availability	2	2	5	3	5	---	---	4	1
Container label customization	---	5	3	---	5	2	---	4	---
Container shape customization	---	4	4	1	4	2	1	2	1
Delivery terms	1	8	---	1	7	---	1	4	---
Delivery time	6	3	---	---	8	---	4	1	---
Discounts offered	2	5	1	---	4	3	---	3	1
Minimum order quantities	---	4	5	---	6	2	---	5	---
Packaging type (e.g., case or bulk)	---	8	1	---	8	---	---	4	---
Payment terms	2	7	---	1	5	2	---	5	---
Price	2	3	4	3	3	2	2	2	1
Product consistency	1	7	1	1	7	---	---	5	---
Product range	---	4	5	2	4	2	2	1	2
Quality meets industry standards	---	9	---	1	7	---	---	5	---
Quality exceeds industry standards	1	8	---	1	6	---	---	5	---
Reliability of supply	2	5	2	3	5	---	---	4	1
Specialized design availability	---	3	5	---	5	2	1	1	2
Technical support/service	1	6	1	---	6	1	---	4	---
U.S. transportation costs	6	2	1	---	7	---	1	4	---

Note: A rating of superior means that price/U.S. transportation cost 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 glass containers

In order to determine whether U.S.-produced glass containers can generally be used in the same applications as imports from China, and nonsubject sources, 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-13, all four responding U.S. producers reported glass containers are always or frequently interchangeable between all sources. A plurality of U.S. importers reported glass containers between the U.S. and China were sometimes interchangeable, while responses were mixed between the U.S. and Mexico. Importer \*\*\* reported that China offered lower minimum production runs than U.S. producers and greater skilled workers for later stage decoration (e.g., decals and hand-painted artwork). Importers \*\*\* and \*\*\* reported that glass containers were sometimes or never interchangeable between country pairs because of the custom nature of their bottles, with options such as print, labels, appliqués, design, caps, and bottle shapes not available from other sources. Purchasers' responses were mixed; half of responding purchasers reported that domestically produced glass containers and glass containers imported from China are sometimes interchangeable. \*\*\* reported that its wine bottle customers differentiate their product on the retail shelf through bottle design and labels and that shoulder shape and panel dimensions are critical to its customers. It added that an investment of over \$2 million would be required to replicate molds currently in non-U.S. plants currently being sourced \*\*\*. \*\*\* reported that interchangeability hinged on manufacturing platform capabilities, quality, and color of glass.

**Table II-13**  
**Glass containers: Interchangeability between glass containers produced in the United States and in other countries, by country pair**

Country pair	Number of U.S. producers reporting					Number of U.S. importers reporting					Number of purchasers reporting				
	A	F	S	I	N	A	F	S	I	N	A	F	S	I	N
U.S. vs. China	3	1	---	---	---	5	4	8	1	2	1	3	5	1	---
U.S. vs. Mexico	3	1	---	---	---	4	3	4	1	2	1	1	4	1	---
U.S. vs. Other	3	1	---	---	---	4	5	5	1	2	1	2	6	1	---
China vs. Mexico	3	1	---	---	---	2	4	3	1	2	---	2	2	1	---
China vs. Other	3	1	---	---	---	3	4	4	1	---	---	3	2	1	---
Mexico vs. Other	3	1	---	---	---	2	4	3	1	---	---	2	2	1	---

Note: A=Always, F=Frequently, S=Sometimes, I = Infrequently, N=Never.

Note: Producers/importers Ardagh and Owens-Illinois both reported that glass containers were always interchangeable for all country pairs.

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

As can be seen from table II-14, eight responding purchasers each reported that domestically produced glass containers, and those imported from China and all other sources usually met minimum quality specifications, whereas four purchasers reported that glass containers from Mexico usually met minimum quality specifications.

**Table II-14**  
**Glass containers: Ability to meet minimum quality specifications, by source**

Source	Always	Usually	Sometimes	Rarely or never
United States	1	8	1	1
China	2	8	---	1
Mexico	1	4	1	---
All other sources	1	8	---	1

Note: Purchasers were asked how often domestically produced or imported glass containers 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 glass containers from the United States, China, or nonsubject sources. As seen in table II-15, all responding U.S. producers reported factors other than price were sometimes or never important in the glass container market for all country-pair comparisons. In contrast, importers primarily reported factors other than price were always or frequently important with respect to glass containers imported from China. Purchasers reported factors other than price were either always or frequently significant between the United States and China as well. Importer \*\*\* stated China provided increased customization for packaging requirements for growing spirits brands. Purchasers reported China having lower minimum production requirements, glass/color quality, and availability as important factors other than price. Purchaser \*\*\* also reported that product from China has a higher acceptance rate with its customers.

**Table II-15**  
**Glass containers: Significance of differences other than price between glass containers produced in the United States and in other countries, by country pair**

Country pair	Number of U.S. producers reporting					Number of U.S. importers reporting					Number of purchasers reporting				
	A	F	S	I	N	A	F	S	I	N	A	F	S	I	N
U.S. vs. China	---	---	2	---	2	9	6	4	---	2	3	6	1	---	---
U.S. vs. Mexico	---	---	2	1	1	4	4	5	---	1	1	5	1	---	---
U.S. vs. Other	---	---	2	1	1	6	5	5	---	1	3	6	1	---	---
China vs. Mexico	---	---	2	---	2	5	4	3	---	1	1	3	1	---	---
China vs. Other	---	---	2	---	2	4	4	3	---	1	2	1	3	---	---
Mexico vs. Other	---	---	2	1	1	2	3	4	---	1	---	1	4	---	---

Note: A = Always, F = Frequently, S = Sometimes, I = Infrequently, N = Never.

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



## **Elasticity estimates**

This section discusses elasticity estimates; parties were encouraged to comment on these estimates in their prehearing or posthearing briefs. No comments were made.

### **U.S. supply elasticity**

The domestic supply elasticity for glass containers measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of glass containers. 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 glass containers. Analysis of these factors above indicates that the U.S. industry has the ability to somewhat increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 6 is suggested.

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

The U.S. demand elasticity for glass containers measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of glass containers. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products (e.g. cans, plastic), as well as the component share of the glass containers in the production of any downstream products. Based on the available information, the aggregate demand for glass containers is likely to be inelastic; a range of -0.25 to -0.40 is suggested.

### **Substitution elasticity**

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.<sup>64</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 glass containers and imported glass containers

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<sup>64</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.

is likely to be in the range of 2 to 5. Although quality of the glass containers produced in China is reportedly as high as or higher than those produced in the United States, differences in minimum order quantities, lead times, design work, and availability are the main factors that reduce substitutability. However, stock bottles, such as for beer, are more highly substitutable than specialty bottles, such as for premium spirits.<sup>65</sup>

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<sup>65</sup> The specialty bottles market includes design attributes such as glass bottles with thick bases, embossing, and decorations (e.g. textures: labels, sleeves, inks, closures, etc.). Cattaneo, “2019 Packaging Outlook: Glass Packaging,” Packaging Strategies, <https://www.packagingstrategies.com/articles/91045-packaging-outlook-glass-packaging>, retrieved April 17, 2020.

## **Part III: U.S. producers' production, shipments, and employment**

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidy margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of six firms that accounted for over 91.0 percent of U.S. production of glass containers during 2019.<sup>1</sup>

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

The Commission issued a U.S. producers' questionnaire to eight firms based on information contained in the petitions. Six firms provided usable data on their operations. Staff believes that these responses accounted for the vast majority of U.S. production of glass containers in 2019.

Table III-1 lists U.S. producers of glass containers, their production locations, positions on the petitions, and shares of total production.

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<sup>1</sup> In addition to the four firms that submitted a response to the Commission's questionnaire in the preliminary phase of these investigations, the Commission received responses to the Commission's questionnaire from Longhorn Glass Company ("Longhorn") and Rocky Mountain Bottle Company ("Rocky Mountain"). Since the responses from the four U.S. producers in the preliminary phase accounted for 91 percent of total production in 2018, Commission staff believes that these six responses represent the vast majority of total production in 2019.

**Table III-1**

**Glass containers: U.S. producers of glass containers, their positions on the petitions, production locations, and shares of reported production, 2019**

<b>Firm</b>	<b>Position on petitions</b>	<b>Production location(s)</b>	<b>Share of production (percent)</b>
Anchor	Petitioner	Elmira, NY Henryetta, OK Jacksonville, FL Lawrenceburg, IN Shakopee, MN Warner Robins, GA	***
Ardagh	Petitioner	Bridgeton, NJ Burlington, WI Dolton, IL Dunkirk, IN Henderson, NC Lincoln, IL	***
Gallo	***	Modesto, CA	***
Longhorn	***	Houston, TX	***
Owens	***	Windsor, CO Waco, TX Tracy, CA Vernon, CA Brockport, PA Muskogee, OK	***
Rocky Mountain	***	Wheat Ridge, CO	***
Total			***

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

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms. There had been some consolidation in the industry prior to January 1, 2017. Ardagh acquired Anchor in 2012 in a transaction involving total cash consideration of \$880 million.<sup>2</sup> In 2013, Ardagh proposed a \$1.7 billion acquisition of Saint-Gobain Containers, Inc., the second largest U.S. manufacturer of glass containers at the time.<sup>3</sup> The Federal Trade Commission ("FTC") challenged the proposed acquisition on antitrust grounds, alleging that the merged firm and its competitor, Owens-Illinois, would control 75 percent of the U.S. market for beer and spirits customers. The FTC permitted the acquisition in 2014 after Ardagh agreed to sell six of the manufacturing plants it acquired in its 2012 acquisition of Anchor, along with Anchor's former corporate headquarters in Tampa, Florida.<sup>4</sup> In August 2019, Arglass Yamamura, a joint-venture partnership between Nihon Yamamura Glass Co and Cambium Arglass, began construction of a \$123 million glass manufacturing facility in Athens, Georgia. The plant will be capable of producing 265,000,000 units per year and is expecting to begin full operation in 2021.<sup>5</sup>

One U.S. producer, \*\*\*, is related to an importer/exporter of the subject merchandise and a foreign producer of the subject merchandise. In addition, as discussed in greater detail below, the same U.S. producer, \*\*\*, directly imports the subject merchandise, and another U.S. producer, \*\*\*, purchased the subject merchandise from U.S. importers in 2019.

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<sup>2</sup> *Acquisition of Anchor Glass by Ardagh Group*, January 30, 2013, <https://www.ardaghgroup.com/news-centre/acquisition-of-anchor-glass-by-ardagh-group>, retrieved October 23, 2019.

<sup>3</sup> *Ardagh Group S.A., Saint-Gobain Containers, Inc., and Compagnie de Saint-Gobain, In the Matter of*, <https://www.ftc.gov/enforcement/cases-proceedings/131-0087/ardagh-group-sa-saint-gobain-containers-inc-compagnie-de>, retrieved October 23, 2019.

<sup>4</sup> *Ibid.*

<sup>5</sup> According to Arglass Yamamura, the company was created to "serve customers' needs for flexibility, efficiency, and customization and help reduce the need to import glass bottles from overseas glass plants." *Construction of Arglass container glass plant set to start*, Glass International, <https://www.glass-international.com/news/construction-of-arglass-container-glass-plants-to-start>, retrieved May 18, 2020.

**Table III-2**

**Glass containers: U.S. producers' ownership, related and/or affiliated firms, 2019**

Item / Firm	Firm Name	Affiliated/Ownership
<b>Ownership:</b>		
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
<b>Related importers/exporters:</b>		
***	***	***
<b>Related producers:</b>		
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

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

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2017. Two firms reported plant closings, 3 reported expansions, 5 reported prolonged shutdowns or curtailments, and 2 reported revised labor agreements.

**Table III-3**  
**Glass containers: U.S. producers' reported changes in operations, since January 1, 2017**

Item / Firm	Reported changed in operations
<b>Plant closings:</b>	
***	***
***	***
<b>Expansions:</b>	
***	***
***	***
***	***
<b>Prolonged shutdowns or curtailments:</b>	
***	***
***	***
***	***
***	***
***	***
<b>Revised labor agreements:</b>	
***	***
***	***

Note: \*\*\*.

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

## U.S. production, capacity, and capacity utilization

Table III-4 and figure III-1 present responding U.S. producers' production, capacity, and capacity utilization. The collective annual production capacity of the six responding U.S. producers decreased by 13.7 percent during 2017-19 with five of the six responding U.S. producers reporting less production capacity in 2019 than in 2017.<sup>6</sup> Responding U.S. producers' collective production decreased by 14.6 percent during 2017-19 with all six responding U.S. producers reporting less production in 2019 than in 2017.<sup>7</sup> Responding U.S. producers' average capacity utilization decreased from 84.0 percent to 83.0 percent during 2017-19. \*\*\* reported lower capacity utilization in 2019 than in 2017 while \*\*\* reported higher capacity utilization. \*\*\* capacity utilization \*\*\* during 2017-19.

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<sup>6</sup> From 2017 to 2019, \*\*\* annual production capacity decreased by \*\*\* percent, \*\*\* percent, \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively.

<sup>7</sup> During 2017-19, \*\*\* production decreased by \*\*\* percent, \*\*\* percent, \*\*\* percent, \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively.

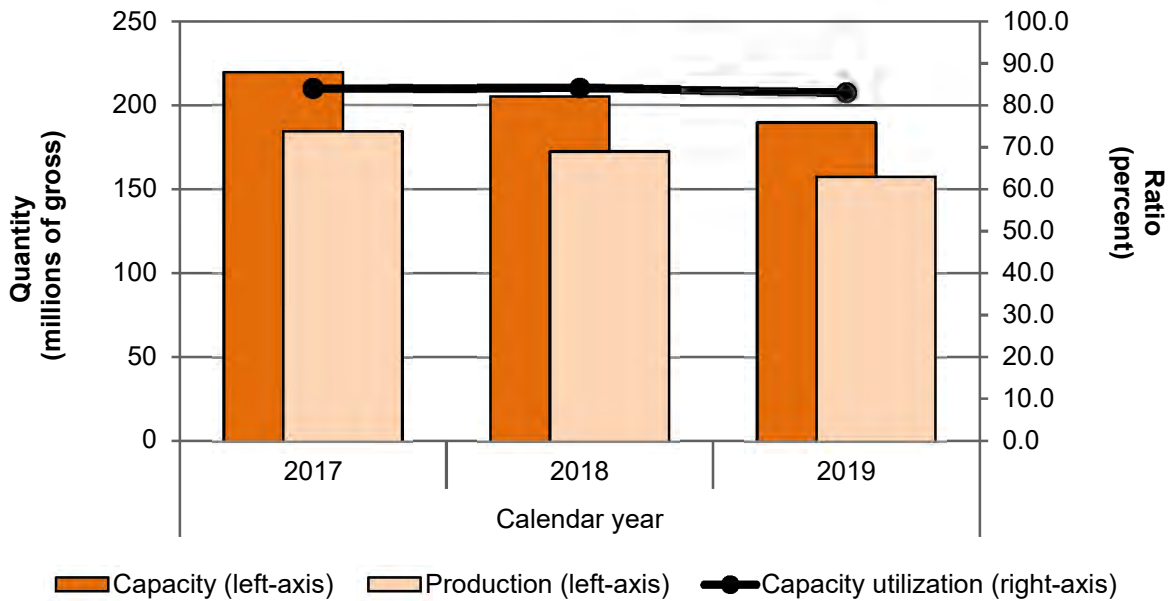


**Table III-4**  
**Glass containers: U.S. producers' production, capacity, and capacity utilization, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Capacity (gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	219,602,498	205,111,717	189,578,806
	<b>Production (gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	184,359,271	172,405,854	157,353,061
	<b>Capacity utilization (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	84.0	84.1	83.0
	<b>Share of production (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	100.0	100.0	100.0

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

**Figure III-1**  
**Glass containers: U.S. producers' production, capacity, and capacity utilization, 2017-19**



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

Table III-5 presents U.S. producers' reported ability to retool production facilities to switch production between different glass container products or to switch production of the same glass container product between different colors. Three firms reported retooling production facilities to switch production between different glass container products and three firms reported retooling production facilities to switch production of the same glass container product between different colors.<sup>8</sup>

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<sup>8</sup> \*\*\* did not report retooling equipment to switch production between different glass container products or between different colors for the same product.

**Table III-5**

**Glass containers: U.S. producers' reported retooling operations, since January 1, 2017**

Item/Firm	Facilities and product category	Duration and costs	Average changeover in days and steps taken for retooling
<b>Switching between different glass containers:</b>			
***	***	***	***
***	***	***	***
***	***	***	***
<b>Switching between different colors:</b>			
***	***	***	***
***	***	***	***
***	***	***	***

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

## U.S. producers' U.S. shipments and exports

Table III-6 presents responding U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. shipments accounted for the vast majority of responding U.S. producers' total shipments during 2017-19 (95.2 percent in 2017, 97.1 percent in 2018, and 98.0 percent in 2019).<sup>9</sup> The collective quantity of responding U.S. producers' U.S. shipments decreased by 11.5 percent during 2017-19 with all six responding U.S. producers reporting less U.S. shipments in 2019 than in 2017.<sup>10</sup> The collective value of responding U.S. producers' U.S. shipments decreased by 6.3 percent during 2017-19.

The average unit value of responding U.S. producers' U.S. shipments increased from \$24.62 per gross in 2017 to \$26.08 per gross in 2019, reflecting the larger decrease in aggregate U.S. shipment quantity as compared to aggregate U.S. shipment value. The average unit value of U.S. shipments is largely a reflection of \*\*\*'s U.S. shipments since they accounted for the vast majority of responding U.S. producers' U.S. shipments during 2017-19.<sup>11</sup>

By quantity, export shipments accounted for a small and decreasing share of responding U.S. producers' total shipments during 2017-19 (4.8 percent in 2017, 2.9 percent in 2018, and 2.0 percent in 2019). Three firms,\*\*\*, reported export shipments during 2017-19.<sup>12</sup> The collective quantity of these firms' export shipments decreased by 64.7 percent during 2017-19 and the collective value decreased by 40.4 percent. The average unit value of export shipments was higher than the average unit value of U.S. shipments in each year during 2017-19.

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<sup>9</sup> Four firms, \*\*\*, reported commercial U.S. shipments and four firms, \*\*\*, reported transfers to related firms. \*\*\*. No firms reported direct internal consumption during 2017-19.

<sup>10</sup> During 2017-19, \*\*\*'s U.S. shipments decreased by \*\*\* percent, \*\*\* percent, \*\*\* percent, \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively.

<sup>11</sup> The unit values of these firms' commercial U.S. shipments ranged from \$\*\*\* per gross to \$\*\*\* per gross in 2017 and from \$\*\*\* per gross to \$\*\*\* per gross in 2019. Additional detail on U.S. producers' range of AUVs is presented in appendix E.

<sup>12</sup> These firms exported glass containers to \*\*\*.

**Table III-6**  
**Glass containers: U.S. producers' U.S. shipments, exports shipments, and total shipments,**  
**2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
U.S. shipments	172,640,368	163,853,771	152,719,402
Export shipments	8,775,758	4,859,710	3,096,359
Total shipments	181,416,126	168,713,481	155,815,761
	<b>Value (1,000 dollars)</b>		
U.S. shipments	4,250,111	4,108,132	3,983,667
Export shipments	193,347	137,605	115,174
Total shipments	4,443,458	4,245,737	4,098,841
	<b>Unit value (dollars per gross)</b>		
U.S. shipments	24.62	25.07	26.08
Export shipments	22.03	28.32	37.20
Total shipments	24.49	25.17	26.31
	<b>Share of quantity (percent)</b>		
U.S. shipments	95.2	97.1	98.0
Export shipments	4.8	2.9	2.0
Total shipments	100.0	100.0	100.0
	<b>Share of value (percent)</b>		
U.S. shipments	95.6	96.8	97.2
Export shipments	4.4	3.2	2.8
Total shipments	100.0	100.0	100.0

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

## U.S. producers' inventories

Table III-7 presents U.S. producers' end-of-period inventories and the ratio of their inventories to U.S. producers' production, U.S. shipments, and total shipments. Responding U.S. producers' end-of-period inventories increased by 16.2 percent from 2017 to 2019. The ratio of the responding U.S. producers' end-of-period inventories to their production ranged from 15.6 percent in 2017 to 21.3 percent in 2019. The ratio of responding U.S. producers' end-of-period inventories to their U.S. shipments ranged from 16.7 percent in 2017 to 21.9 percent in 2019. Due to requirements of "just-in-time" delivery, domestic producers generally hold inventories for their customers.<sup>13</sup>

**Table III-7**  
**Glass containers: U.S. producers' inventories, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
U.S. producers' end-of-period inventories	28,804,392	32,272,698	33,456,644
	<b>Ratio (percent)</b>		
Ratio of inventories to.-- U.S. production	15.6	18.7	21.3
U.S. shipments	16.7	19.7	21.9
Total shipments	15.9	19.1	21.5

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

## U.S. producers' imports

Table III-8 presents data for U.S. producers' U.S. imports of glass containers as well as their reasons for importing. One U.S. producer, \*\*\*, imported glass containers from China during 2017-19 and one U.S. producer, \*\*\* imported glass containers from nonsubject sources during the same period. The ratio of \*\*\* imports from China to its U.S. production was no larger than \*\*\* percent in any year during 2017-19.

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<sup>13</sup> Ardagh reported "holding between 60 to 90 percent inventory and sometimes more" for customers. Conference transcript, pp. 84-85 (Shaddox, Paulet).

**Table III-8**  
**Glass containers: U.S. producers' U.S. production and U.S. imports, 2017-19**

\* \* \* \* \*

## U.S. employment, wages, and productivity

Table III-9 presents U.S. producers' employment-related data during 2017-19. The number of production related workers ("PRWs") decreased by 8.6 percent between 2017 and 2019. Five of the six responding U.S. producers reported less PRWs in 2019 than in 2017. Productivity decreased by 7.4 percent during 2017-19 while unit labor costs increased by 13.2 percent.

**Table III-9**

**Glass containers: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2017-19**

Item	Calendar year		
	2017	2018	2019
Production and related workers (PRWs) (number)	11,870	11,590	10,849
Total hours worked (1,000 hours)	24,011	23,678	22,134
Hours worked per PRW (hours)	2,023	2,043	2,040
Wages paid (\$1,000)	1,167,768	1,144,027	1,128,665
Hourly wages (dollars per hour)	\$48.63	\$48.32	\$50.99
Productivity (gross per hour)	7.7	7.3	7.1
Unit labor costs (dollars per gross)	\$6.33	\$6.64	\$7.17

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



## **Part IV: U.S. imports, apparent U.S. consumption, and market shares**

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

The Commission issued importers' questionnaires to 120 firms believed to be importers of glass containers, as well as to all known U.S. producers of glass containers.<sup>1</sup> Usable questionnaire responses were received from 25 companies, representing \*\*\* percent of U.S. imports from China in 2019 under HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049, and 7010.90.5055. Table IV-1 lists all responding U.S. importers of glass containers from China and other sources, their locations, and their shares of U.S. imports, in 2019.

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<sup>1</sup> The Commission issued questionnaires to those firms identified in the petitions, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS subheadings 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049, and 7010.90.5055 in 2018.

**Table IV-1****Glass containers: U.S. importers, their headquarters and share of total imports by source, 2019**

Firm	Headquarters	Share of imports by source (percent)				
		China	Mexico	All other sources	Nonsubject sources	All import sources
Amigo	Coppell, TX	***	***	***	***	***
Ardagh	Chicago, IL	***	***	***	***	***
Berlin	Chicago, IL	***	***	***	***	***
Burch	Waterford, NY	***	***	***	***	***
Cracker Barrel	Lebanon, TN	***	***	***	***	***
Dollar Tree	Chesapeake, VA	***	***	***	***	***
E.J.	Reno, NV	***	***	***	***	***
Evergreen	Naperville, IL	***	***	***	***	***
Global	Napa, CA	***	***	***	***	***
Grant Howard	Southbury, CT	***	***	***	***	***
Gurunanda	Buena Park, CA	***	***	***	***	***
M A Silva Corks	Santa Rosa, CA	***	***	***	***	***
Midwest	Pewaukee, WI	***	***	***	***	***
O.Berk	Union, NJ	***	***	***	***	***
OI Glass	Perrysburg, OH	***	***	***	***	***
Richards	Portland, OR	***	***	***	***	***
Saxco	Concord, CA	***	***	***	***	***
Saxco Brick	Traverse City, MI	***	***	***	***	***
Silver Spur	Cerritos, CA	***	***	***	***	***
Tricor	Creve Couer, MO	***	***	***	***	***
United	Pomona, CA	***	***	***	***	***
Universal	Vernon, BC	***	***	***	***	***
Veritiv	Atlanta, GA	***	***	***	***	***
Walmart	Bentonville, AR	***	***	***	***	***
West Coast	El Dorado Hills, CA	***	***	***	***	***
Total		100.0	100.0	100.0	100.0	100.0

Note: Shares and ratios shown as "0.0" represent values that are greater than zero percent but less than "0.05" percent. Zeroes, null values, and unidentified calculations are suppressed and shown as "---".

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

## U.S. imports

Table IV-2 and figure IV-1 present data for U.S. imports of glass containers from China, Mexico, and all other sources. U.S. imports from China accounted for a smaller share than imports from Mexico and all other sources of U.S. imports in 2017 and 2019, but the second largest share in 2018, behind U.S. imports from Mexico. After increasing by \*\*\* percent from 2017 to 2018, the quantity of U.S. imports from China decreased by \*\*\* percent from 2018 to 2019, ending \*\*\* percent lower in 2019 than in 2017. The quantity of U.S. imports from Mexico also fluctuated year to year, increasing by \*\*\* percent from 2017 to 2018, but then decreasing by \*\*\* percent from 2018 to 2019, ending \*\*\* percent higher in 2019 than in 2017. The quantity of U.S. imports from all other sources increased by \*\*\* percent from 2017 to 2019, with the majority of the increase occurring from 2017 to 2018.

**Table IV-2**  
**Glass containers: U.S. imports by source, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Value (1,000 dollars)</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Unit value (dollars per gross)</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Table continued on next page.

**Table IV-2--Continued**  
**Glass containers: U.S. imports by source, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of quantity (percent)</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of value (percent)</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Ratio to U.S. production</b>		
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Note: Official import statistics have been adjusted to remove imports of out-of-scope merchandise classified under HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 and 7010.90.5055 based on imports of out-of-scope merchandise reported by \*\*\*, \*\*\*, \*\*\*, \*\*\*, and \*\*\*, \*\*\*, \*\*\*, and \*\*\* in questionnaire responses. \*\*\* and \*\*\* adjustments are based on \*\*\* data, accessed April 1, 2020.

Source: Adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

**Figure IV-1**  
**Glass containers: U.S. imports by source, 2017-19**

\* \* \* \* \*

U.S. imports from China, by value, increased by \*\*\* percent from 2017 to 2018, but then decreased by \*\*\* percent from 2018 to 2019, ending \*\*\* percent higher in 2019 than in 2017. The value of U.S. imports from Mexico increased by \*\*\* percent from 2017 to 2019. The value of U.S. imports from all other sources fluctuated year to year, increasing by \*\*\* percent from 2017 to 2018, but then decreasing by \*\*\* percent from 2018 to 2019, ending \*\*\* percent higher in 2019 than in 2017.

The unit value of U.S. imports from China increased from \$\*\*\* per gross in 2017 to \$\*\*\* per gross in 2019, reflecting the increase in value and decrease in quantity.<sup>2</sup> Although the unit value of U.S. imports from Mexico increased from \$\*\*\* per gross in 2017 to \$\*\*\* per gross, it was lower than the unit value of U.S. imports from China in each year during 2017-19. The unit value of U.S. imports from all other sources increased irregularly from \$\*\*\* per gross in 2017 to \$\*\*\* per gross in 2019.

Table IV-3 and figure IV-2 present data for U.S. imports of glass containers from China, Mexico, and all other sources by month.

**Table IV-3**  
**Glass containers: U.S. imports from China and nonsubject sources by month, January 2017 through March 2020**

U.S. imports	China	Nonsubject sources	All import sources
	Quantity (gross)		
2017.--			
January	951,107	1,621,366	2,572,473
February	873,349	1,648,341	2,521,690
March	983,645	2,165,941	3,149,586
April	1,088,518	1,948,840	3,037,358
May	1,078,680	2,199,690	3,278,370
June	1,192,955	2,638,350	3,831,305
July	1,129,026	2,557,884	3,686,910
August	1,111,285	2,459,444	3,570,729
September	1,052,583	2,393,073	3,445,656
October	1,055,877	2,309,197	3,365,074
November	1,065,082	2,419,559	3,484,641
December	983,794	2,175,447	3,159,241
2018.--			
January	1,048,368	2,266,560	3,314,928
February	993,916	2,001,293	2,995,209
March	1,160,513	2,129,539	3,290,052
April	1,229,264	2,364,423	3,593,687
May	1,398,180	2,527,721	3,925,901
June	1,385,184	2,583,862	3,969,046
July	1,285,331	2,514,370	3,799,701
August	1,151,353	2,529,107	3,680,460
September	933,687	2,569,812	3,503,499
October	1,226,959	2,373,683	3,600,642
November	1,074,151	2,371,887	3,446,038
December	1,345,091	2,257,596	3,602,687

Table continued on next page.

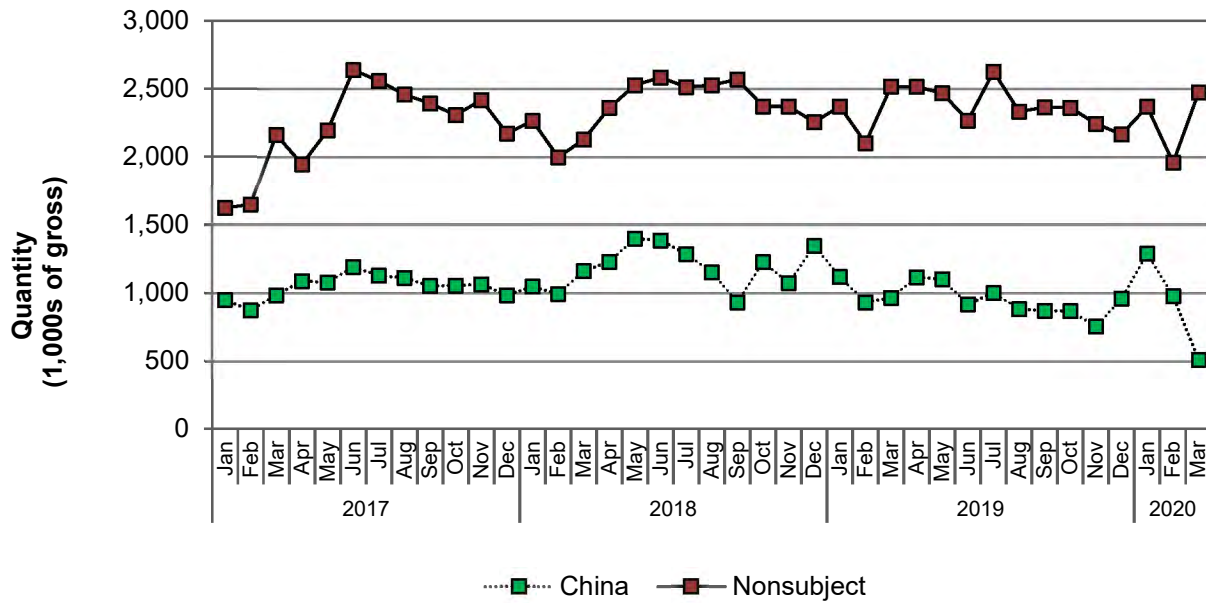
<sup>2</sup> U.S. producers' and U.S. importers' range of AUVs are presented in Appendix D.

**Table IV-3--Continued****Glass containers: U.S. imports from China and nonsubject sources by month, January 2017 through March 2020**

U.S. Imports	China	Nonsubject sources	All import sources
	Quantity (Gross)		
2019.--			
January	1,117,937	2,372,123	3,490,060
February	933,906	2,103,955	3,037,861
March	965,044	2,518,765	3,483,809
April	1,115,550	2,516,987	3,632,537
May	1,101,301	2,468,708	3,570,009
June	920,093	2,268,159	3,188,252
July	1,002,202	2,627,610	3,629,812
August	882,492	2,334,153	3,216,645
September	871,334	2,365,996	3,237,330
October	869,169	2,363,998	3,233,167
November	757,445	2,246,375	3,003,820
December	962,214	2,168,857	3,131,071
2020.--			
January	1,287,494	2,370,288	3,657,782
February	978,423	1,960,863	2,939,286
March	511,471	2,473,363	2,984,834

Source: Official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed May 14, 2020. These data are overstated as they have not been adjusted to remove out-of-scope merchandise.

**Figure IV-2**  
**Glass containers: U.S. imports from China and nonsubject sources by month, January 2017 through March 2020**



Source: Official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed May 14, 2020. These data are overstated as they have not been adjusted to remove out-of-scope merchandise.



## Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.<sup>3</sup> Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.<sup>4</sup> By quantity, imports from China accounted for \*\*\* percent of total imports of glass containers during the most recent 12-month period (September 2018-August 2019). Table IV-4 presents the share of total U.S. imports, by quantity, attributable to China during the most recent 12-month period.

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<sup>3</sup> Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

<sup>4</sup> Section 771 (24) of the Act (19 U.S.C § 1677(24)).

**Table IV-4****Glass containers: U.S. imports in the twelve-month period preceding the filing of the petitions, September 2018 through August 2019**

Item	September 2018 through August 2019	
	Quantity (gross)	Share quantity (percent)
U.S. imports from.-- China	***	***
Mexico	***	***
All other sources	***	***
Nonsubject sources	***	***
All import sources	***	***

Note: Official import statistics have been adjusted to remove imports of out-of-scope merchandise classified under HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 and 7010.90.5055 based on imports of out-of-scope merchandise reported by \*\*\*, \*\*\*, \*\*\*, \*\*\*, and \*\*\*. \*\*\*, \*\*\*, and \*\*\* in questionnaire responses. \*\*\* and \*\*\* adjustments are based on \*\*\* data, accessed April 1, 2020.

Source: Adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## Apparent U.S. consumption and market shares

Table IV-5 and figure IV-3 present data on apparent U.S. consumption and market shares for glass containers.<sup>5</sup> The quantity of apparent U.S. consumption decreased by \*\*\* percent from 2017 to 2019, with the majority of the decrease occurring from 2018 to 2019. U.S. producers' U.S. shipments and subject imports each decreased during 2017-19 while U.S. imports from Mexico and U.S. imports from all other sources each increased. The decrease in apparent U.S. consumption is largely a reflection of the decrease in U.S. producers' U.S. shipments. The value of apparent U.S. consumption decreased irregularly by \*\*\* percent during 2017-19.

U.S. producers' market share, by quantity, decreased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019 while the market share of subject imports increased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. The market share of imports from Mexico increased from \*\*\* percent in 2017 to \*\*\* percent in 2019 and the market share of imports from all other sources increased from \*\*\* percent in 2017 to \*\*\* percent in 2019.

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<sup>5</sup> Appendix F and Appendix G present data on U.S. shipments to end users by product type and firm size.

**Table IV-5**  
**Glass containers: Apparent U.S. consumption and market shares, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
U.S. producers' U.S. shipments	172,640,368	163,853,771	152,719,402
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
Apparent U.S. consumption	***	***	***
	<b>Value (1,000 dollars)</b>		
U.S. producers' U.S. shipments	4,250,111	4,108,132	3,983,667
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
Apparent U.S. consumption	***	***	***

Table continued on next page.

**Table IV-5--Continued**  
**Glass containers: Apparent U.S. consumption and market shares, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Apparent U.S. consumption	***	***	***
	<b>Share of quantity (percent)</b>		
U.S. producers' U.S. shipments	***	***	***
U.S. imports from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<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.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Note: Official import statistics have been adjusted to remove imports of out-of-scope merchandise classified under HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 and 7010.90.5055 based on imports of out-of-scope merchandise reported by \*\*\*, \*\*\*, \*\*\*, \*\*\*, and \*\*\*, \*\*\*, \*\*\*, and \*\*\* in questionnaire responses. \*\*\* and \*\*\* adjustments are based on \*\*\* data, accessed April 1, 2020.

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

**Figure IV-3**  
**Glass containers: Apparent U.S. consumption, 2017-19**

\* \* \* \* \*

## U.S. producers' and U.S. importers' product mix

Table IV-6 presents information on U.S. producers' production and U.S. importers' imports based on product type, color, and design or functional element.

**Table IV-6**  
**Glass containers: U.S. producers' and U.S. importers' product mix, 2017-19**

Item	U.S. producers	U.S. importers
	Count of firms	
Product types.--		
Clear beer bottles	4	7
Colored beer bottles	5	10
750 mL wine bottles, Claret style, green	3	13
750 mL wine bottles, Burgundy style, green	3	12
750 mL wine bottles, other styles, other colors	3	13
> or < 750 mL, wine bottles	3	13
750 mL liquor bottles	4	14
1L liquor bottles	4	11
1.75L liquor bottles	4	9
Clear glass non-alcoholic beverage bottles	3	11
Colored glass non-alcoholic beverage bottles	4	7
Glass jars	3	17
Glass containers, excl food storage and packaging	2	14
Glass perfume bottles	---	4
Other	2	8
Colors.--		
Flint (clear)	5	24
Blue	2	12
Green	3	20
Amber	5	21
Other	2	11
Design or functional elements.--		
Handles	4	14
Embossing	6	18
Etching	2	10
Labeling	1	10
Other	1	10

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

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

## Part V: Pricing data

### Factors affecting prices

#### Raw material costs

The major raw materials used in the production of glass containers are cullet (recycled glass), silica (sand), soda ash, and limestone. There are no industry published prices for cullet, however \*\*\*. Prices for cullet increased from \$\*\*\* to \$\*\*\* per ton for amber/gramber on a simple average basis, and from \$\*\*\* to \$\*\*\* per ton for flint glass during 2016 to 2018.<sup>1</sup> Ardagh stated that approximately 40 percent of its raw material costs were accounted for by cullet.<sup>2</sup>

The price of cullet depends on the color of the glass that is being produced, and prices for different colors of glass cullet vary throughout the regions of the United States.<sup>3</sup> U.S. producers reported that cullet accounted for 35.7 percent of the cost of raw materials in 2019, followed by soda ash and silica (sand), which accounted for 30.1 and 21.5 percent of raw material costs, respectively. The remainder is accounted for by limestone (6.3 percent) and other materials (6.5 percent).

Reported prices for industrial sand changed infrequently between January 2017 and August 2018 (the most recent period for which data are available), increasing by 1.6 percent from December 2017 to January 2018 and remaining steady until August 2018.<sup>4</sup> Reported prices for soda ash changed more often, increasing irregularly by 1.0 percent between January 2017 and December 2019, before dropping by 15.2 percent between December 2019 and March 2020.<sup>5</sup>

Four of five responding producers indicated that their raw material costs have increased since January 1, 2017. Overall, raw material prices, as a share of cost of goods sold (“COGS”),

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<sup>1</sup> Petitioner’s postconference brief, exh. 1, p. 15.

<sup>2</sup> Conference transcript, p. 77 (Paulet).

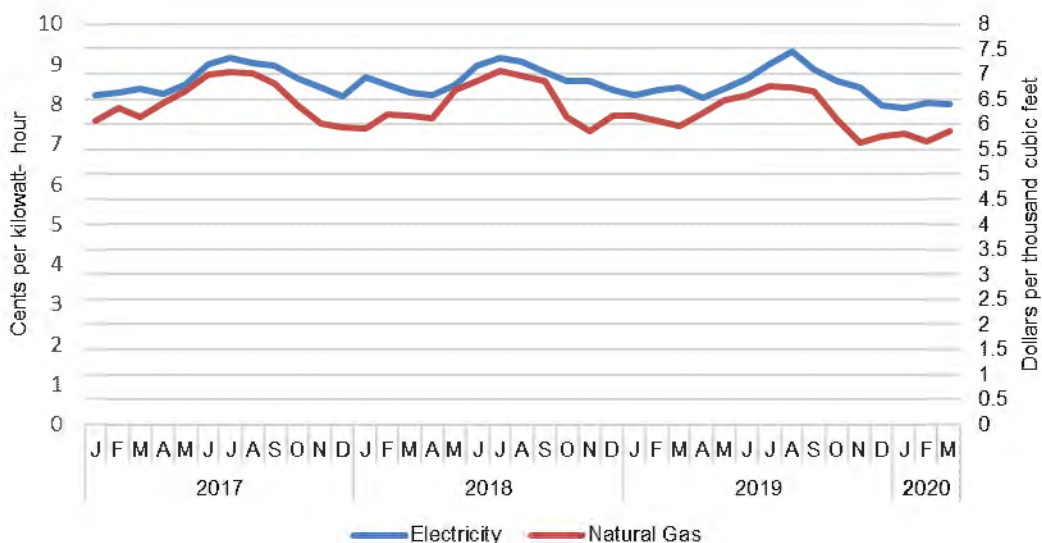
<sup>3</sup> Conference transcript, p. 79 (Paulet).

<sup>4</sup> U.S. Bureau of Labor Statistics, Producer Price Index by Industry: Industrial Sand Mining: Industrial Glass Sand \*\*\*, as provided by FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/PCU2123222123221>, retrieved April 10, 2020.

<sup>5</sup> U.S. Bureau of Labor Statistics, Producer Price Index by Industry: Potash, Soda, and Borate Mineral Mining: Sodium Carbonate and Sulfate \*\*\*, as provided by FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/PCU2123912123913>, retrieved April 10, 2020.

decreased \*\*\* from \*\*\* percent in 2017 to \*\*\* percent in 2019. Other factory costs accounted for the largest proportion of COGS. These other costs include direct labor and energy, specifically natural gas, which fluctuated seasonally during January 2017 to August 2019 before a sharp decline in the latter half of 2019 (figure V-1). According to public financial documentation, more than 90% of Owens-Illinois’ sales volume for customer contracts in the United States and Canada pass the price of natural gas onto the customer, and it uses commodity forward contracts associated with forecasts. Furthermore, it estimates that energy costs account for 10-20% of total manufacturing costs.<sup>6</sup>

**Figure V-1**  
**U.S. price of natural gas sold to commercial customers and average price of electricity sold to industrial customers, January 2017 to January 2020, monthly**



Source: Energy Information Administration, “Electric Power Monthly,” January 2020 Table 5.3, and <https://www.eia.gov/dnav/ng/hist/n3020us3m.htm>, retrieved April 20, 2020.

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

Transportation costs for glass containers shipped from China to the United States averaged 20.5 percent during 2019. These estimates were derived from official import data and represent the transportation and other charges on imports.<sup>7</sup>

<sup>6</sup> Owens-Illinois’s 2019 Form 10K, p. 4 (as filed). <https://investors.o-i.com/static-files/4aec4e4a-352c-4ea8-8e2a-8fe38a183df6>, retrieved May 15, 2020.

<sup>7</sup> The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2019 and then dividing by the customs value based on the HTS subheading



## U.S. inland transportation costs

Five responding U.S. producers and 20 of 21 responding U.S. importers reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs ranged from 6 to 10 percent while most importers reported costs of 3 to 10 percent.

## Packaging costs

U.S. producers and importers were asked to report the share of their sales by end use (beer, wine, spirits, other beverages, food) that were sold in bulk, cases, or other packaging types. \*\*\* reported that \*\*\* percent of its sales to beer manufacturers was in bulk (with the remainder in case packaging), and \*\*\* reported that \*\*\* percent of its sales to wineries were in bulk, but \*\*\* percent of its sales to spirits manufactures were in cases. \*\*\* similarly reported most glass containers for spirits in case packaging, while glass containers for beer and food were mostly sold in bulk packaging. The majority of U.S. importers reported that \*\*\* percent of their sales were in case packaging. \*\*\* were the only importers to report \*\*\* percent of its sales in bulk.

Firms were asked whether there is a price difference between the different packaging types and to provide the average premium for case and other packaging. U.S. producers \*\*\*, \*\*\*, and \*\*\* reported their case premiums were 10, 15, and 20 percent, respectively. Three U.S. importers also reported a premium of 20 percent for case packaging (\*\*\*), but shares ranged from 7.3 percent (\*\*\*) to 30 percent (\*\*\*). Packaging materials represent the largest component of U.S. firm Constellation's beer production, for which the largest cost component is glass bottles.<sup>8</sup>

## Pricing practices

### Pricing methods

As presented in table V-1, nearly all (five of six) U.S. producers typically set prices on a contract basis, although transaction-by-transaction prices and set price lists are also common.

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(...continued)

7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049, and 7010.90.5055.

<sup>8</sup> Constellation \*\*\*, did not submit a questionnaire response. Constellation Group, "2019 Annual Report," p. 6. <http://cbrands.gcs-web.com/static-files/1de30df1-ccc4-4b10-9d6a-1c86f66c5f72>

At least half of responding U.S. importers set prices on a transaction-by-transaction basis and by using set price lists, although a substantial portion also sell via contracts.

**Table V-1**  
**Glass containers: U.S. producers' and importers' reported price setting methods, by number of responding firms**

Method	U.S. producers	Importers
Transaction-by-transaction	3	16
Contract	5	9
Set price list	3	11
Other	1	5
<b>Responding firms</b>	<b>6</b>	<b>23</b>

Note: 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.

U.S. producers reported selling \*\*\* of their glass containers via long-term contracts, while U.S. importers' responses were more mixed but with a plurality reporting glass containers sold on the spot market. All types of contracts combined, however, accounted for 62.4 of sales for importers, of which short-term and annual contracts account for the majority (47.0 percent) of sales. As shown in table V-2, U.S. producers and importers reported their 2019 U.S. commercial shipments of glass containers by type of sale.

**Table V-2**  
**Glass containers: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2019**

Type of sale	U.S. producers	Importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
<b>Total</b>	<b>100</b>	<b>100</b>

Note: Because of rounding, figures may not add to the totals shown.

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

The average length for long-term contracts for U.S. producers was 4.6 years while the average length of long-term contracts for importers was 2.5 years. Three U.S. producers reported not having provisions for renegotiation. Four domestic producers reported indexing to raw materials and price for long-term contracts, and three reported fixing contracts to prices for one-year contracts. All responding U.S. importers reported having provisions for renegotiation for long-term contracts, while seven reported fixing to both price and quantity for short-term contracts. Five each reported fixing either price or price and quantity for one-year contracts. Both \*\*\* reported accounting for inflation in their annual

price adjustments for their fixed price contracts, with \*\*\* reporting contract terms of one to ten years.<sup>9</sup>

Four purchasers reported that they purchase product daily, three purchase weekly, two purchase monthly, one purchases quarterly, and two purchase annually. Ten of eleven responding purchasers reported that their purchasing frequency had not changed since 2017. Purchasers reported contacting one to eight suppliers before making a purchase.

### **Do Not Call Provisions**

Distributors, suppliers, and producers who also sell to end users can include a type of exclusivity in the form of a “no call list”, “do not call”, or “anticircumvention” provisions in contract language. These provisions can stipulate that domestic producers and distributors cannot contact one another’s customers.<sup>10</sup> \*\*\*.<sup>11</sup> \*\*\*.<sup>12</sup> The petitioner has argued that \*\*\*, while respondents argue that these provisions are intended to prevent customer poaching within the distribution channel and that distributors themselves promote domestic producers’ products to small and medium enterprises under these agreements.<sup>13</sup>

### **Sales terms and discounts**

U.S. producers typically quote prices on a delivered basis, while U.S. importers typically quote prices on an f.o.b. basis. The majority of producers offer total volume discounts, followed by quantity discounts, and the majority of responding importers (10 of 24) offer quantity discounts, while 9 offer no discount policy.

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<sup>9</sup> Owens-Illinois’s 2019 10-K, p. 4, December 31, 2019. <https://investors.o-i.com/static-files/4aec4e4a-352c-4ea8-8e2a-8fe38a183df6>, retrieved April 16, 2020, and Ardagh Group, S.A., “Annual Report 2019, p. 41, December 31, 2019. <https://www.ardaghgroup.com/userfiles/files/investors/Ardagh-Group-SA-Annual-Report-2019-full.pdf>, retrieved April 16, 2020.

<sup>10</sup> Hearing transcript, pp. 79-80 (Neely).

<sup>11</sup> Berlin Packaging’s posthearing brief, Commissioner Questions, 3., p. 4.

<sup>12</sup> TricorBraun’s posthearing brief, Exhibit 9, “Official Distributor Agreement”, pp. 3-4.

<sup>13</sup> Petitioner’s posthearing brief, Answers to Commissioner Questions Part IV, p. 39.

## Price leadership

Three of 6 responding purchasers reported that Ardagh and Owens-Illinois were price leaders.<sup>14</sup> Purchaser \*\*\* reported that after Ardagh's acquisition of Verallia, Ardagh and Owens-Illinois appear to be aware of each other's pricing influence on the market.

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<sup>14</sup> When asked about price leaders, firms also identified Ikea, Dollar Tree, Sisecam (Turkey), and Target.

## Price data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following glass containers products shipped to unrelated U.S. customers from January 2017-December 2019.

**Product 1.**-- 750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed

**Product 2.**-- 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed

**Product 3.**-- 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed

**Product 4.**-- 12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

**Product 5.**-- 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

**Product 6.**-- 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed

**Product 7.**--16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style

**Product 8.**--32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style

Four U.S. producers and 15 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.<sup>15</sup> There were no reported prices of products 4, 5, or 6 imported from China. Pricing data reported by these firms accounted for \*\*\* percent of U.S. commercial shipments of domestically-produced glass containers and \*\*\* percent of the quantity of U.S. commercial shipments of glass containers imported from China. Price data for products 1-8 are presented in tables V-3 to

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<sup>15</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.

V-10 and figures V-2 to V-9. Nonsubject country prices for Mexico are presented in Appendix H.<sup>16</sup>

**Table V-3**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 1: 750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed

Note: \*\*\*.

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

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<sup>16</sup> Pricing data reported by these firms accounted for approximately \*\*\* percent of U.S. shipments of subject imports from Mexico.

**Table V-4**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 2: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed.

Note: \*\*\*.

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

**Table V-5**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 3: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed

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



**Table V-6**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 4: 12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed.

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

**Table V-7**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 5: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed.

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

**Table V-8**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 6 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 6: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed

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

**Table V-9**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 7 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 7: 16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style

Note: \*\*\*.

Note: \*\*\*.

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

**Table V-10**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 8 and margins of underselling/(overselling), by quarter, January 2017-December 2019**

\* \* \* \* \*

Note: Product 8: 32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style

Note: \*\*\*.

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

**Figure V-2**

**Glass containers: Weighted-average prices and quantities of domestic and imported product 1, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 1: 750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed

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

**Figure V-3**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 2, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 2: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed

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

**Figure V-4**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 3, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 3: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed.

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



**Figure V-5**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 4, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 4: 12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Figure V-6**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 5, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 5: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Figure V-7**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 6, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 6: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed

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

**Figure V-8**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 7, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 7: 16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style

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

**Figure V-9**  
**Glass containers: Weighted-average prices and quantities of domestic and imported product 8, by quarter, January 2017-December 2019**

\* \* \* \* \*

Product 8: 32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style

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

## Price trends

In general, prices increased during January 2017-December 2019. Table V-11 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from \*\*\* percent for products 2, 5, 6, 7, and 8 while domestic price decreases ranged from \*\*\* percent for products 1, 3, and 4 during January 2017-December 2019. Import price increases for products 2, 3, 7, and 8 from China ranged from \*\*\* while prices decreased by \*\*\* percent for product 1.

For those pricing products for which price comparisons were available, pricing product 3 represented \*\*\* percent of the quantity of pricing products reported for domestically-produced product, \*\*\* percent of the quantity of pricing products reported for imports from China in 2019.<sup>17</sup> The next two largest shares for imports from China were for products 7 and 8, representing a combined \*\*\* and \*\*\* percent, respectively.

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<sup>17</sup> Product 3: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed. The largest quantity of pricing data from domestic producers was for products 4-6, but there were no reported pricing data for subject imports in these products.

**Table V-11**

**Glass containers: Summary of weighted-average f.o.b. prices for products 1-8 from the United States and China**

\* \* \* \* \*

Note: Percentage change from the first quarter in which data were available to the last quarter in which price data were available.

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

## Price comparisons

As shown in table V-12, prices for product imported from China were below those for U.S.-produced product in 13 of 59 instances (involving \*\*\*); margins of underselling ranged from 2.0 to 32.5 percent. In the remaining 46 instances (involving \*\*\*), prices for product from China were between 1.1 and 123.4 percent above prices for the domestic product.

**Table V-12**  
**Glass containers: Instances of underselling/overselling and the range and average of margins, by pricing product, January 2017-December 2019**

Source	Underselling				
	Number of quarters	Quantity (gross)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Product 6	***	***	***	***	***
Product 7	***	***	***	***	***
Product 8	***	***	***	***	***
Total	13	***	16.0	2.0	32.5
Source	(Overselling)				
	Number of quarters	Quantity (gross)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Product 6	***	***	***	***	***
Product 7	***	***	***	***	***
Product 8	***	***	***	***	***
Total	46	***	(44.0)	(1.1)	(123.4)

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

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



## Lost sales and lost revenue

The Commission requested that U.S. producers of glass containers report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of glass containers from China during January 2016-2018. Four U.S. producers submitted lost sales and lost revenue allegations. The four responding U.S. producers identified 14 firms with which they lost sales or revenue (one consisting of lost revenue allegations, and 13 consisting of both types of allegations).

In the final phase of the investigation, of the six responding U.S. producers, four reported that they had to reduce prices, two reported they had to roll back announced price increases, and four firms reported that they had lost sales.

Staff contacted 46 purchasers and received responses from 11 purchasers.<sup>18</sup> Responding purchasers reported purchasing and importing \*\*\* gross of glass containers during January 2017-December 2019 (table V-13).

Of the 11 responding purchasers, 7 reported that, since 2017, they had purchased imported glass containers from China instead of U.S.-produced product. Five of these purchasers reported that subject import prices were lower than U.S.-produced product, and two of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. One purchaser, \*\*\*, estimated purchasing \*\*\* gross of glass containers from China, while another (\*\*\*), estimated purchasing \*\*\* gross of glass containers purchased from China (table V-14). Purchasers identified glass availability and production volume requirements as non-price reasons for purchasing imported rather than U.S.-produced product.

All five responding purchasers reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from China.<sup>19</sup>

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<sup>18</sup> Three purchasers submitted lost sales lost revenue survey responses in the preliminary phase, but did not submit purchaser questionnaire responses in the final phase: \*\*. In the preliminary phase, \*\*. Preliminary Determinations, at Table V-10.

<sup>19</sup> The remaining six indicated that they did not know whether or not producers had done so.

**Table V-13**

**Glass containers: Purchasers' reported purchases and imports, 2017-19**

Purchaser	Purchases in 2017-2019 (gross)			Change in domestic share (pp, 2017-19)	Change in subject country share <sup>2</sup> (pp, 2017-19)
	Domestic	Subject	All other		
***	***	***	***	-20.2	-7.5
***	***	***	***	4.9	6.1
***	***	***	***	42.5	-42.5
***	***	***	***	0.8	-0.9
***	***	***	***	-99.8	99.3
***	***	***	***	0.0	0.0
***	***	***	***	-9.0	1.3
***	***	***	***	-1.7	0.0
***	***	***	***	-2.9	-9.0
***	***	***	***	-12.7	12.7
<b>Total</b>	***	***	***	-2.1	0.9

Note: Includes all other sources and unknown sources.

Note: Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

**Table V-14**

**Glass containers: Purchasers' responses to purchasing subject imports instead of domestic product**

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased subject imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity (gross)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--7; No--4	Yes--5; No--2	Yes--2; No--4	***	

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

In responding to the lost sales lost revenue survey, purchaser \*\*\* reported competitors imported glass to compete more aggressively on accounts. \*\*\* with lower prices and higher volumes. It also mentioned customer requests to re-shore volume to U.S. producers due to 2018 tariffs on China glass products, without reducing pricing for this volume. In the preliminary phase, a number of purchasers also described their experiences. Purchaser \*\*\* reported “Ardagh was our sole supplier. They were bought by a French company and the quality of glass they produced was not in specification and they were out of stock because they were producing wine bottles for export to France. We could not get what we needed and when we did receive an order, the quality was terrible and we had to return numerous pallets.”



# Part VI: Financial experience of U.S. producers

## Background

Six U.S. producers provided usable financial results on their glass container operations. All U.S. producers reported financial data on a calendar year basis.<sup>1</sup> Four of the responding U.S. producers provided their financial data on the basis of generally accepted accounting principles (“GAAP”), while the remaining two companies relied on International Financial Reporting Standards (“IFRS”) as their accounting basis.

Staff verified the results of \*\*\*.<sup>2</sup>

## Operations on glass containers

Figure VI-1 presents each responding firm’s share of the total reported net sales quantity in 2019. Table VI-1 presents aggregated data on U.S. producers’ operations in relation to glass containers over the period examined, while table VI-2 presents corresponding changes in average unit values. Table VI-3 presents selected company-specific financial data.

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

<sup>2</sup> Staff verification report, \*\*\*.

**Figure VI-1**  
**Glass containers: Share of net sales quantity, by firm, 2019**

\* \* \* \* \*

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

Table VI-1

## Glass containers: Results of operations of U.S. producers, 2017-19

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Commercial sales	163,346,526	151,149,944	142,502,204
Transfers to related firms	18,069,600	17,563,537	13,313,557
Total net sales	181,416,126	168,713,481	155,815,761
	<b>Value (1,000 dollars)</b>		
Commercial sales	3,993,626	3,809,486	3,734,233
Transfers to related firms	449,832	436,251	364,608
Total net sales	4,443,458	4,245,737	4,098,841
Cost of goods sold.--			
Raw materials	829,150	812,511	790,836
Direct labor	1,159,624	1,138,878	1,115,527
Other factory costs	1,360,960	1,402,274	1,426,289
Energy costs	377,490	375,771	338,798
Total COGS	3,727,224	3,729,434	3,671,450
Gross profit	716,234	516,303	427,390
SG&A expense	372,622	386,406	366,107
Operating income or (loss)	343,612	129,897	61,283
Interest expense	***	***	***
All other expenses	***	***	***
All other income	***	***	***
Net income or (loss)	***	***	***
Depreciation/amortization	457,766	442,837	457,702
Cash flow	***	***	***
	<b>Ratio to net sales (percent)</b>		
Cost of goods sold.--			
Raw materials	18.7	19.1	19.3
Direct labor	26.1	26.8	27.2
Other factory costs	30.6	33.0	34.8
Energy costs	8.5	8.9	8.3
Average COGS	83.9	87.8	89.6
Gross profit	16.1	12.2	10.4
SG&A expense	8.4	9.1	8.9
Operating income or (loss)	7.7	3.1	1.5
Net income or (loss)	***	***	***

Table continued on next page.

**Table VI-1—Continued**  
**Glass containers: Results of operations of U.S. producers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Ratio to total COGS (percent)</b>		
Cost of goods sold.--			
Raw materials	22.2	21.8	21.5
Direct labor	31.1	30.5	30.4
Other factory costs	36.5	37.6	38.8
Energy costs	10.1	10.1	9.2
Average COGS	100.0	100.0	100.0
	<b>Unit value (dollars per gross)</b>		
Commercial sales	24.45	25.20	26.20
Transfers to related firms	24.89	24.84	27.39
Total net sales	24.49	25.17	26.31
Cost of goods sold.--			
Raw materials	4.57	4.82	5.08
Direct labor	6.39	6.75	7.16
Other factory costs	7.50	8.31	9.15
Energy costs	2.08	2.23	2.17
Average COGS	20.55	22.11	23.56
Gross profit	3.95	3.06	2.74
SG&A expense	2.05	2.29	2.35
Operating income or (loss)	1.89	0.77	0.39
Net income or (loss)	***	***	***
	<b>Number of firms reporting</b>		
Operating losses	***	***	***
Net losses	***	***	***
Data	6	6	6

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



**Table VI-2**  
**Glass containers: Changes in AUVs between calendar years**

Item	Between calendar years		
	2017-19	2017-18	2018-19
	<b>Change in AUVs (percent)</b>		
Commercial sales	▲7.2	▲3.1	▲4.0
Transfers to related firms	▲10.0	▼(0.2)	▲10.3
Total net sales	▲7.4	▲2.7	▲4.5
Cost of goods sold.--			
Raw materials	▲11.0	▲5.4	▲5.4
Direct labor	▲12.0	▲5.6	▲6.1
Other factory costs	▲22.0	▲10.8	▲10.1
Energy costs	▲4.5	▲7.0	▼(2.4)
Average COGS	▲14.7	▲7.6	▲6.6
	<b>Change in AUVs (dollars per gross)</b>		
Commercial sales	▲1.76	▲0.75	▲1.00
Transfers to related firms	▲2.49	▼(0.06)	▲2.55
Total net sales	▲1.81	▲0.67	▲1.14
Cost of goods sold.--			
Raw materials	▲0.51	▲0.25	▲0.26
Direct labor	▲0.77	▲0.36	▲0.41
Other factory costs	▲1.65	▲0.81	▲0.84
Energy costs	▲0.09	▲0.15	▼(0.05)
Average COGS	▲3.02	▲1.56	▲1.46
Gross profit	▼(1.21)	▼(0.89)	▼(0.32)
SG&A expense	▲0.30	▲0.24	▲0.06
Operating income or (loss)	▼(1.50)	▼(1.12)	▼(0.38)
Net income or (loss)	***	***	***

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

**Table VI-3**

**Glass containers: Results of operations of U.S. producers, by firm, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Total net sales (gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	181,416,126	168,713,481	155,815,761
	<b>Total net sales (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	4,443,458	4,245,737	4,098,841
	<b>Cost of goods sold (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	3,727,224	3,729,434	3,671,450
	<b>Gross profit or (loss) (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	716,234	516,303	427,390
	<b>SG&amp;A expenses (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	372,622	386,406	366,107

Table continued on next page.

Table VI-3—Continued

## Glass containers: Results of operations of U.S. producers, by firm, 2017-19

Item	Calendar year		
	2017	2018	2019
	<b>Operating income or (loss) (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	343,612	129,897	61,283
	<b>Net income or (loss) (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	***	***	***
	<b>COGS to net sales ratio (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	83.9	87.8	89.6
	<b>Gross profit or (loss) to net sales ratio (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	16.1	12.2	10.4
	<b>SG&amp;A expense to net sales ratio (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	8.4	9.1	8.9

Table continued on next page.

Table VI-3—Continued

## Glass containers: Results of operations of U.S. producers, by firm, 2017-19

Item	Calendar year		
	2017	2018	2019
	<b>Operating income or (loss) to net sales ratio (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	7.7	3.1	1.5
	<b>Net income or (loss) to net sales ratio (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	***	***	***
	<b>Unit net sales value (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	24.49	25.17	26.31
	<b>Unit raw materials (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	4.57	4.82	5.08

Table continued on next page.

Table VI-3—Continued

## Glass containers: Results of operations of U.S. producers, by firm, 2017-19

Item	Calendar year		
	2017	2018	2019
	<b>Unit direct labor (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	6.39	6.75	7.16
	<b>Unit other factory costs (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	7.50	8.31	9.15
	<b>Unit energy costs (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	2.08	2.23	2.17
	<b>Unit COGS (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	20.55	22.11	23.56

Table continued on next page.

Table VI-3—Continued

## Glass containers: Results of operations of U.S. producers, by firm, 2017-19

Item	Calendar year		
	2017	2018	2019
	<b>Unit gross profit or (loss) (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	3.95	3.06	2.74
	<b>Unit SG&amp;A expenses (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	2.05	2.29	2.35
	<b>Unit operating income or (loss) (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	1.89	0.77	0.39
	<b>Unit net income or (loss) (dollars per gross)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	***	***	***

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

## Net sales

Both the quantity and value of the industry's net sales decreased from 2017 to 2019.<sup>3</sup> The reported aggregate net sales quantity declined by 14.1 percent from 2017 to 2019, while the aggregate net sales value declined by 7.8 percent. The industry's average net sales unit value increased from \$24.49 per gross in 2017 to \$26.31 per gross in 2019, reflecting the larger decrease in aggregate net sales quantity as compared to aggregate net sales value. The directional trends of the individual companies were very uniform, with \*\*\* companies reporting a decrease in net sales, by both quantity and value, from 2017 to 2019. While the directional trends were uniform, there was a wide variation of net sales AUVs, with \*\*\* reporting the lowest AUVs (\$\*\*\* per gross in 2019), and \*\*\* reporting the highest net sales AUVs (\$\*\*\* per gross in 2019). The difference in the companies' net sales AUVs can mainly be attributed to a difference in product mix. \*\*\*.<sup>4</sup>

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<sup>3</sup> Net sales are primarily comprised of commercial sales, but transfers to related firms accounted for 10.1, 10.3, and 8.9 percent of total net sales value in 2017, 2018, and 2019, respectively. Transfers to related firms were reported by \*\*\*.

<sup>4</sup> \*\*\*'s U.S. producer questionnaires at II-14.

## Cost of goods sold and gross profit or (loss)

Raw material costs, direct labor, other factory costs, and energy costs accounted for 21.5, 30.4, 38.8, and 9.2 percent of total COGS, respectively, in 2019. Raw material costs decreased from 2017 to 2019, but on a per-gross basis, raw material costs increased from \$4.57 in 2017 to \$5.08 in 2019. \*\*\* of the companies reported an overall increase in raw material costs on a per-gross basis from 2017 to 2019. \*\*\* reported the largest increase in its per-gross raw material costs. In response to questions from staff, the company indicated this increase was due to \*\*\*.<sup>5</sup> Table VI-4 presents raw materials, by type.<sup>6</sup>

**Table VI-4**  
**Glass containers: Raw materials by type, 2019**

Raw materials	Calendar year 2019		
	Value (1,000 dollars)	Unit value (dollars per gross)	Share of value (percent)
Cullet	282,213	1.81	35.7
Soda ash	237,661	1.53	30.1
Silica	169,755	1.09	21.5
Limestone	49,577	0.32	6.3
Other material inputs	51,630	0.33	6.5
Total, raw materials	790,836	5.08	100.0

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

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<sup>5</sup> Email from \*\*\*.

<sup>6</sup> \*\*\*. Email from \*\*\* and \*\*\* producer questionnaire responses, section III-7.



The industry's cost of direct labor decreased from \$1.16 billion in 2017 to \$1.12 billion in 2019. However, the average unit cost of direct labor increased from \$6.39 per gross in 2017 to \$7.16 per gross in 2019. The company-specific directional trends of the per-unit costs of direct labor were uniform, with \*\*\* companies reporting an increase from 2017 to 2019.<sup>7</sup>

Other factory costs increased from \$1.36 billion in 2017 to \$1.43 billion in 2019. On a per-gross basis, other factory costs increased from \$7.50 per gross in 2017 to \$9.15 per gross in 2019. Like with the companies' net sales AUVs, there is also a wide variation in the reported per-unit other factory costs, with \*\*\* reporting the lowest other factory costs per-gross and \*\*\* reporting the highest. \*\*\* companies reported an increase in their per-gross other factory costs from 2017 to 2019.<sup>8</sup> Lastly, total energy costs decreased from \$377.5 million in 2017 to \$338.8 million in 2019, however, on a per-gross basis these costs increased overall from \$2.08 to \$2.17.

Total COGS decreased by 1.5 percent, from \$3.73 billion to \$3.67 billion from 2017 to 2019, while the industry's total net sales value decreased by 7.8 percent. This larger decrease in net sales value resulted in gross profit decreasing from \$716.2 million in 2017 to \$427.4 million in 2019. As seen in table VI-2, \*\*\* reported gross losses in 2017, \*\*\* reported gross losses in 2018, and \*\*\* reported gross losses in 2019.

### **SG&A expenses and operating income or (loss)**

Total SG&A expenses increased from \$372.6 million in 2017 to \$386.4 million in 2018, and decreased to \$366.1 million in 2019. The SG&A expense ratio (SG&A expenses as a share of sales) increased irregularly from 8.4 percent in 2017 to 8.9 percent in 2019. Operating income decreased from \$343.6 million in 2017 to \$61.3 million in 2019. The operating margin ratio

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<sup>7</sup> \*\*\* had the most noticeable increase. The company reported an increase in its direct labor expense from 2017 to 2019, despite a decrease in its net sales quantity. The company indicated this was due to the fact that it \*\*\*. Email from \*\*\*.

<sup>8</sup> \*\*\* reported the largest dollar value increase in other factory costs from 2017 to 2019, whereas \*\*\* reported the largest company-specific increase on a per-unit basis. In response to questions from staff, \*\*\* reported that its increase in other factory costs was \*\*\*. Email from \*\*\*. \*\*\*. Email from \*\*\*.

decreased from 7.7 percent in 2017 to 1.5 percent in 2019. The number of companies reporting operating losses increased from \*\*\* in 2017 to \*\*\* in 2019.

### **All other expenses and net income or (loss)**

Classified below the operating income level are interest expense, other expense, and other income. As seen in table VI-1, the industry's interest expense decreased irregularly from \*\*\* in 2017 to \$\*\*\* in 2019. All other expenses increased from \$\*\*\* in 2017 to \$\*\*\* in 2018, and again to \$\*\*\* in 2019. \*\*\*. \*\*\*.<sup>9 10</sup> \*\*\*

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<sup>9</sup> Email from \*\*\*. \*\*\*. Email from \*\*\* and \*\*\*'s producer questionnaire response, section III-10.

<sup>10</sup> The Financial Accounting Standards Board ("FASB") defines goodwill as "an asset representing the future economic benefits arising from other assets acquired in a business combination... that are not individually identified and separately recognized." FASB ASC 350-20-20. In other words, goodwill is the excess amount that an acquirer is willing to pay over the fair value of the target company's identifiable assets minus liabilities that arises during a business combination. In theory, goodwill shows that a business has value beyond its identifiable assets and liabilities. This value can be created from a wide variety of factors such as brand recognition, customer loyalty, and quality of employees.

Impairment is the condition that exists when the carrying amount of goodwill (the amount on the company's balance sheet) exceeds its fair value. Once goodwill is on a company's balance sheet, both GAAP and IFRS require that goodwill be tested, at least annually, for any impairment. FASB ASC 350 and International Accounting Standards ("IAS") 36.

\*\*\*. 11 12 \*\*\*. 13 14

Net income decreased from \$\*\*\* in 2017 to \*\*\* in 2019. The number of companies reporting net losses increased from \*\*\* in 2017 and 2018 to \*\*\* in 2019.<sup>15</sup>

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<sup>11</sup> In Ardagh's 2018 Form 10-K, the company reported that "there was an indicator of impairment identified in the Glass Packaging North America CGU {cash generating unit} when the discounted future cash flows were compared to the carrying amount of the Glass Packaging North America CGU." The impairment tests performed resulted in the recognition of an impairment charge of \$186 million on goodwill allocated to the Glass Packaging North America CGU in 2018. Ardagh's Form 2018 Form 10-K, p. 49.

<sup>12</sup> \*\*\*. \*\*\*'s producer questionnaire response, section III-10.

<sup>13</sup> In Owens' 2019 Form 10-K, the company described its goodwill impairment as follows: "{a}s part of its on-going assessment of goodwill, the Company determined that indicators of impairment had occurred during the third quarter of 2019. The triggering events were management's update to its long-range plan, which indicated lower projected future cash flows for its North American reporting unit (in the Americas segment) as compared to the projections used in the most recent goodwill impairment test performed as of October 1, 2018, and a significant reduction in the Company's share price. The Company's business in North America has experienced declining shipments to its alcoholic beverage customers, primarily in the beer category, and this trend is likely to continue into the foreseeable future. These factors, combined with the narrow difference between the estimated fair value and carrying value of the North American reporting unit as of December 31, 2018, resulted in the Company performing an interim impairment analysis during the third quarter of 2019. As a result, the Company recorded a non-cash impairment charge of \$595 million in the third quarter of 2019, which was equal to the excess of the North American reporting unit's carrying value over its fair value. Goodwill related to the Company's other reporting units was determined to not be impaired as a result of the interim impairment analysis." Owens' 2019 Form 10-K, p. 32.

<sup>14</sup> \*\*\*. \*\*\*'s producer questionnaire response, section III-10.

<sup>15</sup> A variance analysis is not shown due to the difference in product mixes and cost structures among the reporting firms.

## Capital expenditures and research and development expenses

Table VI-5 presents capital expenditures and research and development (“R&D”) expenses, by firm. Capital expenditures increased overall from \$299.6 million in 2017 to \$381.9 million in 2019. \*\*\* accounted for the largest company-specific amounts of capital expenditures in each year, \*\*\* accounted for the largest increase in capital expenditures from 2017 to 2018, and \*\*\* accounted for the largest increase from 2018 to 2019.<sup>16</sup> \*\*\* to report any R&D expenses, \*\*\*.<sup>17</sup>

**Table VI-5**  
**Glass containers: Capital expenditures and R&D expenses of U.S. producers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Capital expenditures (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	299,641	396,393	381,931
	<b>R&amp;D expenses (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	***	***	***

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

<sup>16</sup> \*\*\*. \*\*\*'s U.S. producer questionnaire at III-13. \*\*\*. \*\*\*'s U.S. producer questionnaire at III-13. \*\*\*. \*\*\*'s U.S. producer questionnaire at III-13

<sup>17</sup> \*\*\*'s U.S. producer questionnaire at III-13.

## Assets and return on assets

Table VI-6 presents data on the U.S. producers' total assets and their return on assets ("ROA").<sup>18</sup> Total assets decreased overall from \$6.4 billion in 2017 to \$5.8 billion in 2019. The industry's operating return on assets decreased from 5.4 percent in 2017 to 1.1 percent in 2019.

**Table VI-6**  
**Glass containers: U.S. producers' total assets and return on assets, 2017-19**

Firm	Calendar year		
	2017	2018	2019
	<b>Total net assets (1,000 dollars)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	6,400,774	6,279,269	5,803,169
	<b>Operating return on assets (percent)</b>		
Anchor	***	***	***
Ardagh	***	***	***
Gallo	***	***	***
Longhorn	***	***	***
Owens	***	***	***
Rocky Mountain	***	***	***
All firms	5.4	2.1	1.1

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

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<sup>18</sup> The return on assets ("ROA") is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value for the subject product.

## Capital and investment

The Commission requested U.S. producers of glass containers to describe any actual or potential negative effects of imports of glass containers from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-7 presents the number of firms reporting an impact in each category and table VI-8 provides the U.S. producers' narrative responses.

**Table VI-7**  
**Glass containers: Actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017**

Item	No	Yes
Negative effects on investment	***	***
Cancellation, postponement, or rejection of expansion projects		***
Denial or rejection of investment proposal		***
Reduction in the size of capital investments		***
Return on specific investments negatively impacted		***
Other		***
Negative effects on growth and development	***	***
Rejection of bank loans		***
Lowering of credit rating		***
Problem related to the issue of stocks or bonds		***
Ability to service debt		***
Other		***
Anticipated negative effects of imports	***	***

Note: \*\*\*.

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

**Table VI-8**

**Glass containers: Narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017**

<b>Item / Firm</b>	<b>Narrative</b>
<b>Cancellation, postponement, or rejection of expansion projects:</b>	
***	***
***	***
<b>Denial or rejection of investment proposal:</b>	
***	***
<b>Reduction in the size of capital investments:</b>	
***	***
***	***
<b>Return on specific investments negatively impacted:</b>	
***	***
***	***
<b>Other negative effects on investments:</b>	
***	***
***	***

Table continued on next page.

**Table VI-8—Continued**

**Glass containers: Narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017**

Item / Firm	Narrative
<b>Lowering of credit rating:</b>	
***	***
***	***
<b>Problem related to the issue of stocks or bonds:</b>	
***	***
<b>Ability to service debt:</b>	
***	***
<b>Other effects on growth and development:</b>	
***	***
***	***
***	***
<b>Anticipated effects of imports:</b>	
***	***
***	***
***	***
***	***

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



## Part VII: Threat considerations and information on nonsubject countries

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

*In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors<sup>1</sup>--*

- (I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
- (II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
- (III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
- (IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
- (V) inventories of the subject merchandise,*

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<sup>1</sup> Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that “The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition.”

- (VI) 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,*
- (VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),*
- (VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*
- (IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).<sup>2</sup>*

Information on the nature of the subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

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<sup>2</sup> Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

## The industry in China

The Commission issued foreign producers' or exporters' questionnaires to 75 firms believed to produce and/or export glass containers from China.<sup>3</sup> Usable responses to the Commission's questionnaire were received from nine firms.<sup>4</sup> These firms' exports to the United States accounted for approximately \*\*\* percent of U.S. imports of glass containers from China in 2019. According to industry reports, the revenue for glass containers manufacturers in China was \$\*\*\* in 2018. Industry reports on the Chinese glass manufacturing industry estimate that the production of glass containers accounts for approximately \*\*\* percent of the overall production of glass products in China.<sup>5</sup> Table VII-1 presents information on the glass containers operations of the responding producers and exporters in China.

**Table VII-1**  
**Glass containers: Summary data for producers in China, 2019**

Firm	Production (gross)	Share of reported production (percent)	Exports to the United States (gross)	Share of reported exports to the United States (percent)	Total shipments (gross)	Share of firm's total shipments exported to the United States (percent)
Fengyang	***	***	***	***	***	***
Sanhui	***	***	***	***	***	***
Shandong	***	***	***	***	***	***
Wuxi	***	***	***	***	***	***
Yamamura	***	***	***	***	***	***
Total	***	***	***	***	***	***

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

<sup>3</sup> These firms were identified through a review of information submitted in the petition and contained in \*\*\*.

<sup>4</sup> Four firms, \*\*\*, reported exports of resales of glass containers and did not report production of glass containers. During the preliminary phase of these investigations, the Commission received responses to the foreign producers/exporters' questionnaire from the following producers in China: \*\*\*. Their collective production capacity, production, and exports to the United States was \*\*\* gross, \*\*\* gross, and \*\*\* gross, respectively, in 2018. Consequently, data on the glass container operations of responding producers in China in this final phase are understated.

<sup>5</sup> Industry reports covering glass manufacturing in China include subject glass products, industrial products, and technical products. Chen, Sisi. "Glass Product Manufacturing in China." IBISWorld, March 2020; and Chen, Sisi. "Industrial & Technical Glass Manufacturing in China." IBISWorld, March 2020.

Table VII-2 presents information on firms in China that exported resales of glass containers to the United States in 2019.<sup>6</sup>

**Table VII-2**  
**Glass containers: Summary data on non-producer exporters in China, 2019**

Non-producer exporters	Resales exported to the United States (gross)	Share of resales exported to the United States (percent)
Anhua	***	***
IBOYA	***	***
R&H	***	***
Wuhu Anhua	***	***
Total	***	***

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

### Changes in operations

As presented in table VII-3, producers in China reported several operational and organizational changes since January 1, 2017. Two firms reported expansions, three reported prolonged shutdowns or curtailments; and one reported other changes in operations.

**Table VII-3**  
**Glass containers: Reported changes in operations by producers in China since January 1, 2017**

Item / Firm	Reported changed in operations
<b>Expansions:</b>	
***	***
***	***
<b>Prolonged shutdowns or curtailments:</b>	
***	***
***	***
<b>Other:</b>	
***	***

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

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<sup>6</sup> These firms did not produce glass containers in China, but rather purchased glass containers from other producers in China and exported those products to the United States.

## Operations on glass containers

Table VII-4 presents information on the glass container operations of the responding producers and exporters in China. After increasing by 11.3 percent from 2017 to 2018, responding foreign producers' annual production capacity in China decreased by 8.2 percent from 2018 to 2019, ending 2.2 percent higher in 2019 than in 2017. \*\*\* annual production capacity increased by \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively, during 2017-19 while \*\*\* annual production capacity decreased by \*\*\* percent. \*\*\* annual production capacity \*\*\* during 2017-19. Responding producers' annual production capacity in China is projected to be 20.8 percent lower in 2020 than in 2019, but 0.1 percent higher in 2021 than in 2020.

The responding foreign producers' production in China exhibited the same trend as their annual production capacity, increasing irregularly by 5.7 percent during 2017-19. \*\*\* production in China increased by \*\*\* percent, \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively, during 2017-19 while \*\*\* production decreased by \*\*\* percent. Responding foreign producers' production in China is projected to be 47.1 percent lower in 2020 than in 2019, but 2.5 percent higher in 2021 than in 2020.

Responding foreign producers' capacity utilization increased from 82.3 percent in 2017 to 86.8 percent in 2018, but then decreased to 85.1 percent in 2019. \*\*\* reported higher capacity utilization in 2019 than in 2017 while \*\*\* reported \*\*\* percent capacity in each year during 2017-19. Capacity utilization is projected to decrease to 56.9 percent in 2020, but then increase to 58.3 percent in 2021. These projections are driven by \*\*\* whose production is projected to decrease by \*\*\* percent from 2019 to 2020 while \*\*\* production capacity.

Table VII-4

Glass containers: Data on industry in China, 2017-19, and projection calendar years 2020 and 2021

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2017	2018	2019	2020	2021
	<b>Quantity (gross)</b>				
Capacity	7,501,728	8,350,403	7,669,698	6,070,788	6,078,738
Production	6,176,681	7,244,473	6,528,844	3,455,814	3,542,537
End-of-period inventories	932,719	650,468	759,248	672,047	621,839
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	3,752,171	4,364,180	3,826,479	2,727,349	2,765,545
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	2,202,201	3,162,544	2,593,585	815,666	827,199
Total shipments	5,954,372	7,526,724	6,420,064	3,543,015	3,592,744
	<b>Ratios and shares (percent)</b>				
Capacity utilization	82.3	86.8	85.1	56.9	58.3
Inventories/production	15.1	9.0	11.6	19.4	17.6
Inventories/total shipments	15.7	8.6	11.8	19.0	17.3
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	63.0	58.0	59.6	77.0	77.0
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	37.0	42.0	40.4	23.0	23.0
Total shipments	***	***	***	***	***
	<b>Quantity (gross)</b>				
Resales exported to the United States	283,658	530,344	420,365	293,423	64,551
Total exports to the United States	***	***	***	***	***
	<b>Ratios and shares (percent)</b>				
Share of total exports to the United States:					
Exported by producers	***	***	***	***	***
Exported by resellers	***	***	***	***	***
Adjusted share of total shipments exported to the United States	***	***	***	***	***

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

Fluctuating year to year, responding foreign producers' home market shipments increased by 16.3 percent from 2017 to 2018, but then decreased by 12.3 percent from 2018 to 2019, ending 2.0 percent higher in 2019 than in 2017. \*\*\* home market shipments increased by \*\*\* percent, \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively, during 2017-19 while \*\*\* home market shipments decreased by \*\*\* percent. Responding foreign producers' home market shipments are projected to be \*\*\* percent lower in 2020 than in 2019, but \*\*\* percent higher in 2021 than in 2020.

Export shipments accounted for a minority share of responding foreign producers' total shipments (\*\*\* percent in any year during 2017-19). Exports to the United States accounted for the majority of responding foreign producers' total export shipments (\*\*\* percent in 2017, \*\*\* percent in 2018, and \*\*\* percent in 2019). Fluctuating year to year, export shipments to the United States increased by \*\*\* percent from 2017 to 2018, but then decreased by \*\*\* percent from 2018 to 2019, ending \*\*\* percent higher in 2019 than in 2017. \*\*\* exports to the United States increased by \*\*\* percent, \*\*\* percent, and \*\*\* percent, respectively, during 2017-19 while \*\*\* exports to the United States decreased by \*\*\* percent and \*\*\* percent, respectively. Exports to the United States are projected to be \*\*\* percent lower in 2020 than in 2019, but \*\*\* percent higher in 2021 than in 2020.<sup>7</sup>

Responding exporters' exports of resales of glass containers accounted for \*\*\* percent, \*\*\* percent, and \*\*\* percent of total exports to the United States in 2017, 2018, and 2019, respectively. Responding exporters' exports of resales of glass containers increased irregularly by \*\*\* percent during 2017-19. They are projected to be \*\*\* percent lower in 2020 than in 2019 and \*\*\* percent lower in 2021 than in 2020.

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<sup>7</sup> The projection for 2020 is largely a reflection of \*\*\*, which accounted for \*\*\* responding producers in China's total export shipments to the United States in 2019. \*\*\* export shipments to the United States is projected to decrease by \*\*\* percent from 2019 to 2020. In its response to the questionnaire, \*\*\*.

## Alternative products

As shown in table VII-5, responding producers in China produced other products on the same equipment and machinery used to produce glass containers. Responding producers' overall production capacity increased by \*\*\* percent from 2017 to 2018, but then decreased by \*\*\* percent from 2018 to 2019, ending \*\*\* percent higher 2019 than in 2017. Glass containers accounted for the vast majority of total production on shared equipment during 2017-19. \*\*\* reported production of other products on shared equipment. They reported producing \*\*\*.

**Table VII-5**  
**Glass containers: Overall capacity and production on the same equipment as in-scope production by producers in China, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Overall capacity	***	***	***
Production:			
Glass containers	***	***	***
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***
	<b>Ratios and shares (percent)</b>		
Overall capacity utilization	***	***	***
Share of production:			
Glass containers	***	***	***
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***

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

## Exports of glass articles for conveyance/packing of goods

Table VII-6 presents data for exports of glass articles for conveyance/packing of goods, which includes glass containers, from China in descending order of quantity for 2019. The leading export markets for glass articles for conveyance/packing of goods from China in 2019, by quantity, were the United States, Indonesia, Vietnam, and the Philippines, accounting for 28.7 percent, 5.8 percent, 5.7 percent, and 5.7 percent, respectively.



**Table VII-6**  
**Glass articles for conveyance/packing of goods: Exports from China by destination market,**  
**2017-19**

Destination market	Calendar year		
	2017	2018	2019
	<b>Quantity (1,000 kilograms)</b>		
United States	533,676	567,995	510,655
Indonesia	117,678	91,078	103,851
Vietnam	85,106	93,856	101,525
Philippines	109,286	103,079	100,738
Canada	78,540	83,319	76,225
Australia	91,974	80,769	62,567
New Zealand	55,487	51,417	53,121
India	24,983	26,415	51,999
Hong Kong	44,869	47,147	43,469
All other destination markets	543,405	562,873	677,278
Total exports	1,685,003	1,707,948	1,781,428
	<b>Value (1,000 dollars)</b>		
United States	382,208	444,521	417,409
Indonesia	75,685	70,893	85,705
Vietnam	150,305	186,933	186,991
Philippines	54,054	53,329	57,387
Canada	53,940	66,635	72,432
Australia	52,342	55,912	50,261
New Zealand	25,797	25,509	27,205
India	25,606	29,955	49,963
Hong Kong	33,148	33,798	28,308
All other destination markets	649,141	719,473	957,170
Total exports	1,502,227	1,686,958	1,932,831

Table continued on next page.

**Table VII-6--Continued**  
**Glass articles for conveyance/packing of goods: Exports from China by destination market, 2017-19**

Destination market	Calendar year		
	2017	2018	2019
	<b>Unit value (dollars per kilogram)</b>		
United States	0.72	0.78	0.82
Indonesia	0.64	0.78	0.83
Vietnam	1.77	1.99	1.84
Philippines	0.49	0.52	0.57
Canada	0.69	0.80	0.95
Australia	0.57	0.69	0.80
New Zealand	0.46	0.50	0.51
India	1.02	1.13	0.96
Hong Kong	0.74	0.72	0.65
All other destination markets	1.19	1.28	1.41
Total exports	0.89	0.99	1.08
	<b>Share of quantity (percent)</b>		
United States	31.7	33.3	28.7
Indonesia	7.0	5.3	5.8
Vietnam	5.1	5.5	5.7
Philippines	6.5	6.0	5.7
Canada	4.7	4.9	4.3
Australia	5.5	4.7	3.5
New Zealand	3.3	3.0	3.0
India	1.5	1.5	2.9
Hong Kong	2.7	2.8	2.4
All other destination markets	32.2	33.0	38.0
Total exports	100.0	100.0	100.0

Note: United States is shown at the top and all remaining top export destinations are shown in descending order of quantity for 2019. HS subheading 7010.90 is a basket category that contains products outside of the scope of these investigations.

Source: Official export statistics under HS subheading 7010.90, as reported by China customs in the Global Trade Atlas database, accessed March 24, 2020.

## **U.S. inventories of imported merchandise**

Table VII-7 presents data on U.S. importers' reported end-of-period inventories of glass containers. U.S. importers' end-of-period inventories of imports from China decreased irregularly by \*\*\* percent from 2017 to 2019. Between 17 and 18 firms held inventories at the end of each year during 2017-19 with nine of those firms reporting fewer inventories at the end of 2019 than at the end of 2017. The ratios of U.S. importers' end-of-period inventories of imports from China to their U.S. imports from China and to their U.S. shipments of imports from

China increased by \*\*\* percentage points and \*\*\* percentage points, respectively, from 2017 to 2019. U.S. importers' end-of-period inventories of imports from Mexico decreased irregularly by \*\*\* percent from 2017 to 2019. The ratio of U.S. importers' end-of-period inventories of imports from Mexico to their U.S. imports from Mexico and U.S. shipments of imports from Mexico increased by \*\*\* percentage points and \*\*\* percentage points, respectively, from 2017 to 2019. U.S. importers' end-of-period inventories of imports from all other sources increased by \*\*\* percent during 2017-19. The ratio of U.S. importers' end-of-period inventories of imports from all other sources to their U.S. imports from all other sources and U.S. shipments of imports from all other sources increased by \*\*\* percentage points and \*\*\* percentage points, respectively, during 2017-19.

**Table VII-7**  
**Glass containers: U.S. importers' end-of-period inventories of imports by source, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Inventories (gross); Ratios (percent)</b>		
Imports from China Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from Mexico: Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from all other sources: Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from Nonsubject sources: Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from all import sources: Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***

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

## U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of glass containers from China after December 31, 2019. The largest share of arranged imports during January-March 2020 are from China while the largest share of arranged imports during April-June 2020 are from sources other than China or Mexico. Most arranged imports after June 2020 are from Mexico. Table VII-8 presents data for the quantity of glass containers arranged for U.S. importation after December 31, 2019.

**Table VII-8**  
**Glass containers: Arranged imports, January 2020 through December 2020**

Item	Period				Total
	Jan-Mar 2020	Apr-Jun 2020	Jul-Sept 2020	Oct-Dec 2020	
	<b>Quantity (gross)</b>				
Arranged U.S. imports from.-- China	***	***	***	***	***
Mexico	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

## Antidumping or countervailing duty orders in third-country markets

There are no known trade remedy actions on glass containers from China in third-country markets.

## Information on nonsubject countries

### Operations in Mexico

According to industry reports, there are 16 manufacturing facilities in Mexico that produce glass containers.<sup>8</sup> According to Glass Online, the largest Mexican producers are Owens-Illinois, Grupo Modelo, Fevisa Industrial, Sivesa, and Saverglass.<sup>9</sup> In recent years, glass container production has expanded quickly in Mexico due to the popularity of Mexican beer.<sup>10</sup> In November 2017, Owens-Illinois and Constellation Brands announced an expansion of their joint plant in Coahuila.<sup>11</sup> The expansion added a fifth furnace and cost approximately \$140 million. On November 12, 2018, Owens-Illinois acquired a 49.7 percent equity stake in Empresas Comegua S.A. from a subsidiary of Vitro, S.A.B. de C.V. (“Vitro”).<sup>12</sup> Empresas Comegua is a leading manufacturer of glass containers in the Central American and Caribbean markets. On July 1, 2019, Owens-Illinois announced it had acquired a glass container plant from Nueva Fábrica Nacional de Vidrio, S. de R.L. de C.V., a subsidiary of Grupo Modelo, which is itself a subsidiary of Anheuser-Busch InBev SA/NV.<sup>13</sup>

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<sup>8</sup> Jetley, Rajeev. “Mexico: And Its Fast-Growing Container Glass Industry.” GlassOnline.Com - The World’s Leading Glass Industry Website (blog), November 5, 2018.

<https://www.glassonline.com/mexico-and-its-fast-growing-container-glass-industry/>.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.

<sup>11</sup> MEXICONOW. “Owens-Illinois Upgrades Coahuila Facility to Be ‘the Most Modern Glass Container Factory in the World.’” MEXICONOW (blog), November 1, 2017. <https://mexico-now.com/owens-illinois-to-make-its-coahuila-facility-the-most-modern-glass-container-factory-in-the-world/>.

<sup>12</sup> “O-I Acquires Nearly 50 Percent Interest in Empresas Comegua S.A.” Accessed April 6, 2020. <https://www.o-i.com/news/o-i-acquires-nearly-50-percent-interest-in-empresas-comegua-s-a/>.

<sup>13</sup> “O-I Announces the Completion of Acquisition of Glass Packaging Facility in Mexico; Expands Presence in Growing Global Brands.” Accessed April 6, 2020. <https://www.o-i.com/news/o-i-announces-the-completion-of-acquisition-of-glass-packaging-facility-in-mexico-expands-presence-in-growing-global-brands/>.

## Exports of glass articles for conveyance/packing of goods from Mexico

Table VII-9 presents data on exports of glass articles for conveyance/packing of goods, which includes glass containers, from Mexico in descending order of quantity for 2019. The United States was by far the largest export market for glass articles for conveyance/packing of goods from Mexico, receiving 99.4 percent of all exports from Mexico in 2019.

**Table VII-9**  
**Glass articles for conveyance/packing of goods: Exports from Mexico by destination market, 2017-19**

Destination market	Calendar year		
	2017	2018	2019
	<b>Quantity (1,000 kilograms)</b>		
United States	474,910	462,819	482,078
Guatemala	371	469	1,069
Costa Rica	734	1,129	622
Argentina	737	1,138	425
Dominican Republic	325	238	186
Italy	205	544	129
Peru	751	651	84
Belize	1,171	890	72
Spain	174	435	41
All other destination markets	19,172	18,280	55
Total exports	498,549	486,592	484,760
	<b>Value (1,000 dollars)</b>		
United States	382,338	400,174	433,110
Guatemala	839	1,309	1,341
Costa Rica	1,082	1,269	872
Argentina	3,335	4,776	1,962
Dominican Republic	378	263	322
Italy	1,330	2,456	299
Peru	2,141	1,926	217
Belize	989	880	55
Spain	1,264	1,784	246
All other destination markets	54,593	55,710	148
Total exports	448,289	470,548	438,573

Table continued on next page.

**Table VII-9--Continued**  
**Glass articles for conveyance/packing of goods: Exports from Mexico by destination market, 2017-19**

Destination market	Calendar year		
	2017	2018	2019
	<b>Unit value (dollars per kilogram)</b>		
United States	0.81	0.86	0.90
Guatemala	2.26	2.79	1.25
Costa Rica	1.47	1.12	1.40
Argentina	4.53	4.20	4.62
Dominican Republic	1.16	1.11	1.73
Italy	6.50	4.51	2.33
Peru	2.85	2.96	2.58
Belize	0.84	0.99	0.77
Spain	7.24	4.10	6.03
All other destination markets	2.85	3.05	2.70
Total exports	0.90	0.97	0.90
	<b>Share of quantity (percent)</b>		
United States	95.3	95.1	99.4
Guatemala	0.1	0.1	0.2
Costa Rica	0.1	0.2	0.1
Argentina	0.1	0.2	0.1
Dominican Republic	0.1	0.0	0.0
Italy	0.0	0.1	0.0
Peru	0.2	0.1	0.0
Belize	0.2	0.2	0.0
Spain	0.0	0.1	0.0
All other destination markets	3.8	3.8	0.0
Total exports	100.0	100.0	100.0

Note: Shares and ratios shown as "0.0" represent values greater than zero percent, but less than "0.05" percent. United States is shown at the top while all remaining top export destinations are shown in descending order of quantity for 2019. HS subheading 7010.90 is a basket category that contains products outside of the scope of these investigations.

Source: Official export statistics under HS subheading 7010.90, as reported by Instituto Nacional de Estadística y Geografía (INEGI) in the Global Trade Atlas database, accessed March 24, 2020.

## **Global exports of glass articles for conveyance/packing of goods**

Table VII-10 presents data on global exports of glass articles for conveyance/packing of goods, which includes glass containers, during 2017-19. The value of global exports of glass containers increased by 7.1 percent between 2017 and 2019. China accounted for the largest share of global exports, by value, in 2019 (19.0 percent), followed by Germany (12.2 percent), Italy (8.6 percent) and France (7.7 percent).

**Table VII-10****Glass articles for conveyance/packing of goods: Global exports by exporter, 2017-19.**

Exporter	Calendar year		
	2017	2018	2019
	<b>Value (1,000 dollars)</b>		
United States	388,073	333,506	308,367
China	1,502,227	1,686,958	1,932,831
Germany	1,186,190	1,308,885	1,247,198
Italy	763,241	868,629	881,241
France	717,222	801,288	785,657
Mexico	448,289	470,548	438,573
Portugal	413,361	433,718	409,893
Poland	353,365	416,887	386,910
Spain	319,866	332,177	330,492
Belgium	247,263	271,606	274,330
Netherlands	259,332	253,222	234,726
India	195,905	242,590	234,155
All other exporters	2,720,981	2,957,972	2,725,433
Total	9,515,315	10,377,986	10,189,807
	<b>Share of value (percent)</b>		
United States	4.1	3.2	3.0
China	15.8	16.3	19.0
Germany	12.5	12.6	12.2
Italy	8.0	8.4	8.6
France	7.5	7.7	7.7
Mexico	4.7	4.5	4.3
Portugal	4.3	4.2	4.0
Poland	3.7	4.0	3.8
Spain	3.4	3.2	3.2
Belgium	2.6	2.6	2.7
Netherlands	2.7	2.4	2.3
India	2.1	2.3	2.3
All other exporters	28.6	28.5	26.7
Total	100.0	100.0	100.0

Note: United States is shown at the top while all remaining top exporters are shown in descending order of value for 2019.

Source: Official exports statistics under HS subheading 7010.90 as reported by various statistical authorities in the Global Trade Atlas database, accessed April 17, 2020. HS subheading 7010.90 is a basket category that also contains products outside of the scope of these investigations.



**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.

Citation	Title	Link
84 FR 52536, October 2, 2019	<i>Glass Containers From China; Institution of Anti-Dumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2019-10-02/pdf/2019-21347.pdf">https://www.govinfo.gov/content/pkg/FR-2019-10-02/pdf/2019-21347.pdf</a>
84 FR 56168, October 21, 2019	<i>Certain Glass Containers From the People's Republic of China: Initiation of Countervailing Duty Investigation</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2019-10-21/pdf/2019-22868.pdf">https://www.govinfo.gov/content/pkg/FR-2019-10-21/pdf/2019-22868.pdf</a>
84 FR 56174, October 21, 2019	<i>Certain Glass Containers From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2019-10-21/pdf/2019-22869.pdf">https://www.govinfo.gov/content/pkg/FR-2019-10-21/pdf/2019-22869.pdf</a>
85 FR 12256, March 2, 2020	<i>Certain Glass Containers From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2020-03-02/pdf/2020-04223.pdf">https://www.govinfo.gov/content/pkg/FR-2020-03-02/pdf/2020-04223.pdf</a>
85 FR 23759, April 29, 2020	<i>Certain Glass Containers From the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2020-04-29/pdf/2020-09090.pdf">https://www.govinfo.gov/content/pkg/FR-2020-04-29/pdf/2020-09090.pdf</a>
85 FR 31141, May 22, 2020	<i>Certain Glass Containers From the People's Republic of China: Final Affirmative Countervailing Duty Determination</i>	<a href="https://www.govinfo.gov/content/pkg/FR-2020-05-22/pdf/2020-11070.pdf">https://www.govinfo.gov/content/pkg/FR-2020-05-22/pdf/2020-11070.pdf</a>



**APPENDIX B**

**LIST OF HEARING WITNESSES**



## CALENDAR OF HEARING

Those listed below participated in the United States International Trade Commission's hearing:

**Subject:** Glass Containers from China  
**Inv. No.:** 701-TA-630 (Final)  
**Dates:** May 1 – May 15, 2020

The hearing was opened by Chairman David S. Johanson via Go To Meeting on May 6, 2020, and the schedule for written submissions was provided as follows:

**Friday, May 1, 2020 by 5:15 p.m.:** Parties submitted and served witness testimony.  
**Wednesday, May 6, 2020 at 10:00 a.m.:** Commission staff sent a first set of questions to parties.  
**Friday, May 8, 2020 by 3:00 p.m.:** Parties submitted and served responses to first set of questions.  
**Tuesday, May 12, 2020 at 9:30 a.m.:** Limited Commissioner Q&A's with counsel, and closing arguments/rebuttal remarks  
**Friday, May 15, 2020 by 5:15 p.m.:** Parties submitted and served posthearing briefs and responses to the second set of questions

### **In Support of the Imposition of Antidumping and Countervailing Duty Orders:**

Wiley Rein LLP  
Washington, DC  
on behalf of

American Glass Packaging Coalition

**Bertrand Paulet**, Chief Executive Officer, Ardagh Glass, Inc.

**John T. Shaddox**, Chief Commercial Officer, Ardagh Glass, Inc.

**Thomas Holz**, Chief Financial Officer, Ardagh Glass, Inc.

**Don Leclair**, Director, Anchor Glass Corporation's Board and  
Chairman of the Audit Committee

**In Support of the Imposition of  
Antidumping and Countervailing Duty Orders (continued):**

Amy E. Sherman, International Trade Analyst, Wiley Rein LLP

**Daniel B. Pickard** )  
 ) – OF COUNSEL  
**Derick G. Holt** )

**In Opposition to the Imposition of  
Antidumping and Countervailing Duty Orders:**

Husch Blackwell LLP  
Washington, DC  
on behalf of

TricorBraun Inc.

**Court Carruthers**, President and Chief Executive, TricorBraun Inc

**Mark O'Bryan**, Chief Operations Officer, TricorBraun, Inc.

**James Dougan**, Vice President, Economic Consulting Services, LLC

**Jeffrey S. Neeley** )  
 ) – OF COUNSEL  
**Stephen Brophy** )

Alston & Bird LLP  
Washington, DC  
on behalf of

Yamamura Glass Qinhuangdao Co., Ltd. (“YGQ”)

**José de Diego Arozamena**, Chief Executive Officer,  
Arglass Yamamura, LLC

**Roberto Guzman**, Vice President of Operations & Supply Chain,  
Encore Glass

**Kenneth G. Weigel** )  
 ) – OF COUNSEL  
**Yuzhe PengLing** )



**In Opposition to the Imposition of  
Antidumping and Countervailing Duty Orders (continued):**

Hogan Lovells US LLP  
Washington, DC  
on behalf of

Berlin Packaging LLC

<b>Jared R. Wessel</b>	)	
	)	– OF COUNSEL
<b>Michael G. Jacobson</b>	)	

**Closing Arguments/Rebuttal Remarks:**

Those in Support of Imposition (**Daniel B. Pickard**, Wiley Rein LLP)

Those in Opposition to Imposition (**Jeffrey S. Neeley**, Husch Blackwell LLP, and  
**Jared R. Wessel**, Hogan Lovells US LLP)

**-END-**



**APPENDIX C**  
**SUMMARY DATA**



**Table C-1**

**Glass containers: Summary data concerning the U.S. market, 2017-19**

(Quantity=gross; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per gross; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity:						
Amount.....	***	***	***	▼***	▼***	▼***
Producers' share (fn1).....	***	***	***	▼***	▼***	▲***
Importers' share (fn1):						
China.....	***	***	***	▲***	▲***	▼***
Mexico.....	***	***	***	▲***	▲***	▲***
All other sources.....	***	***	***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	▲***	▲***	▲***
All import sources.....	***	***	***	▲***	▲***	▼***
U.S. consumption value:						
Amount.....	***	***	***	▼***	▲***	▼***
Producers' share (fn1).....	***	***	***	▼***	▼***	▼***
Importers' share (fn1):						
China.....	***	***	***	▲***	▲***	▼***
Mexico.....	***	***	***	▲***	▲***	▲***
All other sources.....	***	***	***	▲***	▲***	▲***
Nonsubject sources.....	***	***	***	▲***	▲***	▲***
All import sources.....	***	***	***	▲***	▲***	▲***
U.S. imports from:						
China:						
Quantity.....	***	***	***	▼***	▲***	▼***
Value.....	***	***	***	▲***	▲***	▼***
Unit value.....	***	***	***	▲***	▼***	▲***
Ending inventory quantity.....	***	***	***	▼***	▲***	▼***
Mexico:						
Quantity.....	***	***	***	▲***	▲***	▼***
Value.....	***	***	***	▲***	▲***	▲***
Unit value.....	***	***	***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	▼***	▲***	▼***
All other sources:						
Quantity.....	***	***	***	▲***	▲***	▲***
Value.....	***	***	***	▲***	▲***	▼***
Unit value.....	***	***	***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	▲***	▲***	▲***
Nonsubject sources:						
Quantity.....	***	***	***	▲***	▲***	▼***
Value.....	***	***	***	▲***	▲***	▲***
Unit value.....	***	***	***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	▲***	▲***	▼***
All import sources:						
Quantity.....	***	***	***	▲***	▲***	▼***
Value.....	***	***	***	▲***	▲***	▼***
Unit value.....	***	***	***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	▲***	▲***	▼***

Table continued on next page.

**Table C-1 --Continued**

**Glass containers: Summary data concerning the U.S. market, 2017-19**

(Quantity=gross; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per gross; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
<b>U.S. producers':</b>						
Average capacity quantity.....	219,602,498	205,111,717	189,578,806	▼(13.7)	▼(6.6)	▼(7.6)
Production quantity.....	184,359,271	172,405,854	157,353,061	▼(14.6)	▼(6.5)	▼(8.7)
Capacity utilization (fn1).....	84.0	84.1	83.0	▼(0.9)	▲0.1	▼(1.1)
<b>U.S. shipments:</b>						
Quantity.....	172,640,368	163,853,771	152,719,402	▼(11.5)	▼(5.1)	▼(6.8)
Value.....	4,250,111	4,108,132	3,983,667	▼(6.3)	▼(3.3)	▼(3.0)
Unit value.....	\$24.62	\$25.07	\$26.08	▲6.0	▲1.8	▲4.0
<b>Export shipments:</b>						
Quantity.....	8,775,758	4,859,710	3,096,359	▼(64.7)	▼(44.6)	▼(36.3)
Value.....	193,347	137,605	115,174	▼(40.4)	▼(28.8)	▼(16.3)
Unit value.....	\$22.03	\$28.32	\$37.20	▲68.8	▲28.5	▲31.4
Ending inventory quantity.....	28,804,392	32,272,698	33,456,644	▲16.2	▲12.0	▲3.7
Inventories/total shipments (fn1).....	15.9	19.1	21.5	▲5.6	▲3.3	▲2.3
<b>Production workers:</b>						
Production workers.....	11,870	11,590	10,849	▼(8.6)	▼(2.4)	▼(6.4)
Hours worked (1,000s).....	24,011	23,678	22,134	▼(7.8)	▼(1.4)	▼(6.5)
Wages paid (\$1,000).....	1,167,768	1,144,027	1,128,665	▼(3.3)	▼(2.0)	▼(1.3)
Hourly wages (dollars per hour).....	\$48.63	\$48.32	\$50.99	▲4.8	▼(0.7)	▲5.5
Productivity (gross per hour).....	7.7	7.3	7.1	▼(7.4)	▼(5.2)	▼(2.4)
Unit labor costs.....	\$6.33	\$6.64	\$7.17	▲13.2	▲4.8	▲8.1
<b>Net sales:</b>						
Quantity.....	181,416,126	168,713,481	155,815,761	▼(14.1)	▼(7.0)	▼(7.6)
Value.....	4,443,458	4,245,737	4,098,841	▼(7.8)	▼(4.4)	▼(3.5)
Unit value.....	\$24.49	\$25.17	\$26.31	▲7.4	▲2.7	▲4.5
Cost of goods sold (COGS).....	3,727,224	3,729,434	3,671,450	▼(1.5)	▲0.1	▼(1.6)
Gross profit or (loss) (fn2).....	716,234	516,303	427,390	▼(40.3)	▼(27.9)	▼(17.2)
SG&A expenses.....	372,622	386,406	366,107	▼(1.7)	▲3.7	▼(5.3)
Operating income or (loss) (fn2).....	343,612	129,897	61,283	▼(82.2)	▼(62.2)	▼(52.8)
Net income or (loss) (fn2).....	***	***	***	▼***	▼***	▼***
Capital expenditures.....	299,641	396,393	381,931	▲27.5	▲32.3	▼(3.6)
Research and development expenses.....	***	***	***	▼***	▼***	▼***
Net assets.....	6,400,774	6,279,269	5,803,169	▼(9.3)	▼(1.9)	▼(7.6)
Unit COGS.....	\$20.55	\$22.11	\$23.56	▲14.7	▲7.6	▲6.6
Unit SG&A expenses.....	\$2.05	\$2.29	\$2.35	▲14.4	▲11.5	▲2.6
Unit operating income or (loss) (fn2).....	\$1.89	\$0.77	\$0.39	▼(79.2)	▼(59.4)	▼(48.9)
Unit net income or (loss) (fn2).....	***	***	***	▼***	▼***	▼***
COGS/sales (fn1).....	83.9	87.8	89.6	▲5.7	▲4.0	▲1.7
Operating income or (loss)/sales (fn1).....	7.7	3.1	1.5	▼(6.2)	▼(4.7)	▼(1.6)
Net income or (loss)/sales (fn1).....	***	***	***	▼***	▼***	▼***

Table continued on next page.

**Table C-1 --Continued**

**Glass containers: Summary data concerning the U.S. market, 2017-19**

Notes:

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "0.05" percent (if negative).  
Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "0.05" percent (if negative).  
Note.--Official import statistics have been adjusted to remove out-of-scope merchandise classified under HTS

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data submitted in response to Commission questionnaires and adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.





**APPENDIX D**

**COMMERCE'S PRELIMINARY LTFV MARGINS**



**Table D-1**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets) (percent)</b>
Guangdong Huaxing Glass Co., Ltd	Guangdong Huaxing Glass Co., Ltd	24.90	14.36
Foshan Huaxing Glass Co., Ltd		24.90	14.36
Qixia Changyu Glass Co., Ltd	Qixia Changyu Glass Co., Ltd	7.60	0.00
Anhui Longrui Glass Co., Ltd	Anhui Longrui Glass Co., Ltd	13.76	3.22
Xuzhou Ruijing Glass Products Co., Ltd	Golden Ace Industrial Co., Ltd	13.76	3.22
Shandong Huapeng Glass Co., Ltd	Happyann Crafts Int'l Co., Ltd	13.76	3.22
Shenyang Hongye Glass Containers Co., Ltd		13.76	3.22
Shandong Pharmaceutical Glass Co., Ltd	Hongkong Happyann Trading Company Limited	13.76	3.22
Shandong Jingbo Groups Co., Ltd		13.76	3.22
Taixing Jili Glass Products Co., Ltd		13.76	3.22
Shanxi Qi County Guanghua Glassware Co., Ltd	Meridian International Ltd	13.76	3.22
Hejian Jiarui Glassware Factory		13.76	3.22
Shijiazhuang Langxu Arts & Crafts Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Xuzhou Youcheng Glass Products Co., Ltd	Photo USA Electronic Graphic Inc	13.76	3.22
Zibo Deli Glass Products Co., Ltd	Qingdao Gemmy Imp. & Exp. Co., Ltd	13.76	3.22
Shandong Fulong Glass Technology Co., Ltd		13.76	3.22
Shandong Hongda Glass Product Co., Ltd		13.76	3.22
Zibo Shengjie Glass Product Co., Ltd		13.76	3.22
Jinan Guanheping Glass Product Co., Ltd		13.76	3.22
Xuzhou Jiuding Glass Product Co., Ltd		13.76	3.22
Zibo Jiurun Glass Product Co., Ltd		13.76	3.22
Shandong Zibo Boshan Jiuyuan Company		13.76	3.22
Xuzhou Yichen Glass Product Co., Ltd		13.76	3.22
Laiwu Dongjing Industry & Trade Co., Ltd		13.76	3.22
Shandong Dingxin Electronic Glass Group Co., Ltd	Qingdao Huoyan Phoenix Import & Export Co., Ltd	13.76	3.22
Zhejiang Caifu Glass Co., Ltd		13.76	3.22
Shangdong Changshengtai Glass Products Co., Ltd	Shangdong Changshengtai Glass Products Co., Ltd	13.76	3.22

Table continued on next page.

**Table D-1--Continued**

**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Shandong Dingxin Electronic Glass Group Co., Ltd	Shandong Dingxin Electronic Glass Group Co., Ltd	13.76	3.22
Shandong Hongda Glass Ware Co., Ltd	Shandong Excel Light Industrial Products Co., Ltd	13.76	3.22
Shandong Hongda Glass Ware Co., Ltd	Shandong Glassware Corporation	13.76	3.22
Shangdong Changshengtai Glass Products Co., Ltd		13.76	3.22
Shandong Luguan Glass Products Co., Ltd		13.76	3.22
Jinan Yida Glass Products Co., Ltd		13.76	3.22
Shandong Heishan Glass Group Co., Ltd	Shandong Heishan Glass Group Co., Ltd	13.76	3.22
Shandong Hongda Glass Products Co., Ltd	Shandong Honghan International Trading Co., Ltd	13.76	3.22
Shandong Jusheng Glass Co., Ltd		13.76	3.22
Xuzhou Zhuoxin Glass Products Co., Ltd		13.76	3.22
Shandong Huapeng Glass Co., Ltd		13.76	3.22
Zibo Hongda Glass Products Co., Ltd	Shandong Injoy Houseware Co., Ltd	13.76	3.22
Zibo Zhide Light Industry Products Co., Ltd		13.76	3.22
Shandong Fulong Glass Technology Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued****Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Xuzhou Ruijing Glass Products Co., Ltd	Shandong Injoy Houseware Co., Ltd	13.76	3.22
Cao County Jiefeng Crafts Co., Ltd		13.76	3.22
Zibo Longsheng Glass Products Co., Ltd		13.76	3.22
Zibo Boshan Shengjie Glass Products Co., Ltd		13.76	3.22
Shandong Baoxiang Glass Co., Ltd		13.76	3.22
Shandong Jiaye General Merchandise Co., Ltd	Shandong Jiaye General Merchandise Co., Ltd	13.76	3.22
Shandong Pharmaceutical Glass Co., Ltd	Shandong Pharmaceutical Glass Co., Ltd	13.76	3.22
Shandong Hongda Glass Factory	Shandong Shine Chin Glassware Co., Ltd	13.76	3.22
Shandong Juli Glass Co., Ltd	Shandong Top-Peak Enterprise Co., Ltd	13.76	3.22
Shandong Wenbao Technology Products Co., Ltd	Shandong Wenbao Technology Products Co., Ltd	13.76	3.22
Changxing Hua Zhong Glass Co., Ltd	Sinoglass Housewares Co., Ltd	13.76	3.22
Xuzhou Xupeng Glass Products Co., Ltd	Xuzhou Credible Glass Products Co., Ltd	13.76	3.22
Xuzhou Sanheshun Glass Products Co., Ltd		13.76	3.22
Shandong Pharmaceutical Glass Co., Ltd	Xuzhou Das Packing Solutions Co., Ltd	13.76	3.22
Taizhou Paishen Printing Industry Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Xuzhou Runtong Cap Manufacturing Co., Ltd	Xuzhou Das Packing Solutions Co., Ltd	13.76	3.22
Xuzhou Jiuding Glass Products Co., Ltd		13.76	3.22
Xuzhou Juli Bottle Cap Factory		13.76	3.22
Yangzhou Jiangyang Plastic Products Factory		13.76	3.22
Yiwu Hongyuan Glass Products Co., Ltd		13.76	3.22
Xuzhou Zhending Glass Products Co., Ltd		13.76	3.22
Xuzhou Rongjian Glass Products Co., Ltd		13.76	3.22
Xuzhou Tepu Glass Products Co., Ltd		13.76	3.22
Zibo Zhulifei International Trade Co., Ltd		13.76	3.22
Nantong Shunyu Packing Materials Co., Ltd		13.76	3.22
Ningbo Letao Packing Co., Ltd	13.76	3.22	
Xuzhou Supeng Yongxu Glass Products Co., Ltd	Xuzhou Huihe International Trade Co., Ltd	13.76	3.22
Yamamura Glass Qinhuangdao Co., Ltd	Yamamura Glass Qinhuangdao Co., Ltd	13.76	3.22
Feicheng Jingying Glass Products Co., Ltd	Zibo Ace International Co., Ltd	13.76	3.22
Zibo Boshan Shengjie Glass Products Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Zibo Anto Glass Industry Co., Ltd	Zibo Anto Glass Industry Co., Ltd	13.76	3.22
Shandong Heishan Glass Group Co., Ltd	Zibo Comm-Mountain Glassware Co., Ltd	13.76	3.22
Yantai NBC Glass Packaging Co., Ltd	Zibo Creative International Trade Co., Ltd	13.76	3.22
Shandong Taishan Shengliyuan Glass Co., Ltd		13.76	3.22
Shanghai Esjoi Industry Co., Ltd		13.76	3.22
Longkou Shengda Glass Products Co., Ltd		13.76	3.22
Shandong Pharmaceutical Glass Co., Ltd		13.76	3.22
Qingdao Yutai Pharmaceutical Packaging Technology Co., Ltd		13.76	3.22
Shandong Jingbo Group Co., Ltd		13.76	3.22
Shandong Huapeng Glass Co., Ltd	Zibo Derola Houseware Co., Ltd	13.76	3.22
Hebei Xinji Tianyu Glass, Ltd		13.76	3.22
Zibo Hongda Glass Products Co., Ltd	Zibo E&T General Merchandise Co., Ltd	13.76	3.22
Xuzhou Hengyi Glass Products Co. Ltd	Zibo Fecund Trading Co., Ltd	13.76	3.22
Xuzhou Yichen Glass Products Co., Ltd		13.76	3.22

Table continued on next page.



**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Zibo Longsheng Glass Products Co., Ltd	Zibo Grandeur Light Industrial Products Co., Ltd	13.76	3.22
Shandong Hongda Glass Products Co., Ltd	Zibo Green Light Industrial Co., Ltd	13.76	3.22
Shandong Baoxiang Glass Co., Ltd also known as Zibo Gongmao Glass Factory		13.76	3.22
Zibo Haichang Light Industry Products Co., Ltd		13.76	3.22
Shandong Longyu Glass Co., Ltd	Zibo Hicheon Homeware Corp., Ltd	13.76	3.22
Zibo Hesheng Glass Products Co., Ltd		13.76	3.22
Xuzhou Xindong Glass Products Co., Ltd		13.76	3.22
Zibo Jintian Light Industry Products Co., Ltd		13.76	3.22
Zhangqiu City Huacheng Glass Products Factory		13.76	3.22
Qingdao Golden Sunshine Paper Products Co., Ltd		13.76	3.22
Shandong Yiyuan Oukai Glass Products Co., Ltd		13.76	3.22
Shandong Hongda Glassware Co., Ltd		Zibo Intrue Light Industrial Products Co., Ltd	13.76

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**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Feicheng Jingying Glass Products Co., Ltd	Zibo Intrue Light Industrial Products Co., Ltd	13.76	3.22
Shandong Changshengtai Glass Products Co., Ltd		13.76	3.22
Jinan Yida Glassware Co., Ltd		13.76	3.22
Jiangsu Luobote Glass Technology Co., Ltd		13.76	3.22
Jiangsu Zheng Mao Glass Technology Co., Ltd		13.76	3.22
Shandong Luguan Glass Co., Ltd		13.76	3.22
Shandong Mount Tai Sheng Li Yuan Glass Co., Ltd		13.76	3.22
Xuzhou Heng Yi Glassware Co., Ltd		13.76	3.22
Jiangsu Honghua Glass Technology Co., Ltd		13.76	3.22
Xuzhou Shengbang Glass Technology Co., Ltd		13.76	3.22
Xuzhou Sheng Shi Glass Products Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**

**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Shandong Baoxiang Glass Co., Ltd	Zibo Intrue Light Industrial Products Co., Ltd	13.76	3.22
Zibo Longyu Glass Co., Ltd		13.76	3.22
Shandong Yueshi Glass Products Co., Ltd		13.76	3.22
Zibo Lijiang Light Industrial Products Co., Ltd	Zibo Lijiang Light Industrial Products Co., Ltd	13.76	3.22
Zibo Boshan Shengjie Glass Products Co., Ltd	Zibo Lucky Ship International Trading Co., Ltd	13.76	3.22
Jiangsu Rongtai Glass Products Co., Ltd		13.76	3.22
Jinan Yida Glass Products Co., Ltd		13.76	3.22
Shandong Luguan Glass Products Co., Ltd		13.76	3.22
Qingdao Weipaike Glass Trading Co., Ltd	Zibo Meienlanda International Trading Co., Ltd	13.76	3.22
Xuzhou Hongrun Glass Products Co., Ltd	Zibo Melory Import & Export Trade Co., Ltd	13.76	3.22
Jinan Yida Glass Products Co., Ltd		13.76	3.22
Shangdong Mounttai Sheng Li Yuan Glass Co., Ltd	Zibo Modern International Co., Ltd	13.76	3.22
Shandong Hongda Glassware Co., Ltd		13.76	3.22
Shandong Longyu Glassware Co., Ltd		13.76	3.22
Xuzhou Supengyongxu Gls Products Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued****Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Shandong Aolian Packaging Joint Stock Co., Ltd	Zibo Modern International Co., Ltd	13.76	3.22
Shandong Changshengtai Glass Products Co, Ltd		13.76	3.22
Shandong Luguan Glassware Co., Ltd	Zibo Redisland General Merchandise Co., Ltd	13.76	3.22
Shandong Xukun Zhaoming Co., Ltd		13.76	3.22
Jinan Yaotai Light Industrial Products Co., Ltd	Zibo Sailing Pacific Import And Export Co., Ltd	13.76	3.22
Zibo Shirley Light Industrial Products Co., Ltd	Zibo Shelley Trading Co., Ltd	13.76	3.22
Hebei Fangyuan Glass Products Co., Ltd	Zibo Sunfect International Trade Co., Ltd	13.76	3.22
Shandong Changshengtai Glass Products Co., Ltd	Zibo Top Arts Co., Ltd	13.76	3.22
Zibo Top Glass Industry Co., Ltd	Zibo Top Glass Industry Co., Ltd	13.76	3.22
ZiBo Boshan Shengjie Glass Product Co., Ltd	Zibo Top-Peak Enterprises Ltd	13.76	3.22
Zibo Truely Light Industrial Products Co., Ltd	Zibo Truely Light Industrial Products Co., Ltd	13.76	3.22
Shandong Hongda Glassware Co., Ltd	Zibo Uni-Shine Industry Co., Ltd	13.76	3.22
Xuzhou Juhui Glassware Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Xuzhou Dazheng Glassware Co., Ltd	Zibo Uni-Shine Industry Co., Ltd	13.76	3.22
Xuzhou Haoboyang Glass Products Co., Ltd		13.76	3.22
Zibo Guge Glass Products Co., Ltd		13.76	3.22
Hejian Fuling Glassware Co., Ltd		13.76	3.22
Xuzhou Rongheng Glass Products Co., Ltd	Zibo Yadong Import and Export Trade Co., Ltd	13.76	3.22
Zibo Boshan Shengjie Glass Products Co., Ltd		13.76	3.22
Zibo Yede Light Industrial Products Co., Ltd		13.76	3.22
Shandong Longyu Glass Products Co., Ltd		13.76	3.22
Shandong Hongda Glass Products Co., Ltd	Zibo Yuedai Shangmao Company Ltd	13.76	3.22
Zibo Baoquan Light Industrial Products Co., Ltd		13.76	3.22
Shandong Juli Glass Co., Ltd		13.76	3.22
Zibo Boshan Shengjie Glass Products Co., Ltd		13.76	3.22
Xuzhou Xi'ao Glass Products Co., Ltd		13.76	3.22
Shandong Pingping Anan Trading Co., Ltd		13.76	3.22
Xuzhou Yichen Glass Products Co., Ltd		13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Shandong Taishan Shengliyuan Glass Co., Ltd	Zibo Yuedai Shangmao Company Ltd	13.76	3.22
Zibo Mingxuan Light Industrial Products Co., Ltd		13.76	3.22
Zibo Yufeng Arts & Crafts Factory		13.76	3.22
Zibo Jiewei Light Industrial Products Co., Ltd		13.76	3.22
Zibo Boshan Fujie Metal Crafts Factory		13.76	3.22
Cixi Shunrun Plastic Product Factory		13.76	3.22
Zibo Xuanye Industry and Trade Co., Ltd		13.76	3.22
Xuzhou Tianyi Zhigai Co., Ltd		13.76	3.22
Zibo Xinshun Light Industrial Products Factory		13.76	3.22
Cixi Xinju Plastic Product Factory		13.76	3.22
Yiwu Hongzhi Jewelry Co., Ltd		13.76	3.22
Shandong Fulong Glass Technology Co., Ltd	Zibo Zhaohai Light Industrial Products Co., Ltd	13.76	3.22

Table continued on next page.

**Table D-1--Continued**  
**Glass containers: Commerce's preliminary weighted-average LTFV margins with respect to imports from China**

<b>Producer</b>	<b>Exporter</b>	<b>Preliminary dumping margin (percent)</b>	<b>Cash deposit rate (adjusted for subsidy offsets)</b>
Shandong Taishan Shengliyuan Glass Co., Ltd	Zibo Zhaohai Light Industrial Products Co., Ltd	13.76	3.22
Changshengtai Glass Products Co., Ltd	Zibo Zhaohai Light Industrial Products Co., Ltd	13.76	3.22
All others		255.68	245.14

Source: 85 FR 23759, April 29, 2020





**APPENDIX E**

**U.S. PRODUCERS' AND U.S. IMPORTERS' RANGE OF AUVs**



**Table E-1**  
**Glass containers: U.S. producers' range of AUVs**

Firm	Average unit value of US shipments (dollars per gross)	Lowest AUV product		Highest volume product		Highest AUV product	
		Price (dollars per gross)	Description	Price (dollars per gross)	Description	Price (dollars per gross)	Description
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***

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

**Table E-2**  
**Glass containers: U.S. importers' range of AUVs**

Firm	Average unit value of US shipments (dollars per gross)	Lowest AUV product		Highest volume product		Highest AUV product	
		Price (dollars per gross)	Description	Price (dollars per gross)	Description	Price (dollars per gross)	Description
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***

Table continued on next page.

**Table E-2--Continued**  
**Glass containers: U.S. importers' range of AUVs**

Firm	Average unit value of US shipments (dollars per gross)	Lowest AUV product		Highest volume product		Highest AUV product	
		Price (dollars per gross)	Description	Price (dollars per gross)	Description	Price (dollars per gross)	Description
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***

Table continued on next page.

**Table E-2--Continued**  
**Glass containers: U.S. importers' range of AUVs**

Firm	Average unit value of US shipments (dollars per gross)	Lowest AUV product		Highest volume product		Highest AUV product	
		Price (dollars per gross)	Description	Price (dollars per gross)	Description	Price (dollars per gross)	Description
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***
***	***	***	***	***	***	***	***

Note: Zeroes, null values, and undefined calculations are suppressed and shown as “---”.

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

**APPENDIX F**

**U.S. SHIPMENTS TO END USERS BY TYPE**





## U.S. shipments of glass containers to beer manufacturers

Table F-1 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to beer manufacturers. The combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to beer manufacturers decreased by \*\*\* percent from 2017 to 2019. This decrease is primarily a reflection of the decrease in U.S. producers' U.S. shipments, which was the largest on an aggregate basis.<sup>1</sup> U.S. shipments of subject imports decreased at a higher rate than U.S. producers' U.S. shipments during the same period.<sup>2</sup> The decrease in U.S. producers' U.S. shipments was also greater than the combined decrease in U.S. shipments of imports from Mexico and U.S. shipments of imports from all other sources on an aggregate basis, but smaller on a percentage basis. The combined value of U.S. producers' and U.S. importers' U.S. shipments of glass containers to beer manufacturers decreased by \*\*\* percent during 2017-19. The unit value of U.S. producers' U.S. shipments of glass containers to beer manufacturers was lower than the unit values of U.S. shipments of subject imports, imports from Mexico, and imports from all other sources in each year during 2017-19.

U.S. producers' share of U.S. shipments of glass containers to beer manufacturers, by quantity, increased from \*\*\* percent in 2017 to \*\*\* percent in 2019. Subject imports' share of U.S. shipments of glass containers to beer manufacturers was no higher than \*\*\* percent in any year during 2017-19 and imports from Mexico's share was also no higher than \*\*\* percent. Imports from all other sources' share of U.S. shipments of glass containers to beer manufacturers decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019. U.S. shipments of glass containers to beer manufacturers had the largest ratio to overall apparent U.S. consumption, ranging from \*\*\* percent in 2019 to \*\*\* percent in 2017.

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<sup>1</sup> \*\*\*. Email from \*\*\*, March 31, 2020; Email from \*\*\*, March 31, 2020; and email from \*\*\*, March 30, 2020.

<sup>2</sup> Six out of the 24 responding U.S. importers reported U.S. shipments of subject imports to beer manufacturers with two firms, \*\*\* accounting for \*\*\* of those shipments in each year during 2017-19. Five of the six firms reported fewer U.S. shipments of subject imports to beer manufacturers in 2019 than in 2017 with \*\*\* accounting for the vast majority of the decrease.

**Table F-1**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to beer manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Table continued on next page.

**Table F-1--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to beer manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Beer manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Note: Shares and ratios shown as "0.0" represent values greater than zero percent, but less than "0.05" percent.

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## U.S. shipments of glass containers to wine manufacturers

Table F-2 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to wine manufacturers. The combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to wine manufacturers decreased by \*\*\* percent from 2017 to 2019. This decrease is primarily a reflection of the decrease in U.S. shipments of subject imports, which was greater than the decrease in U.S. producers' U.S. shipments on an aggregate and percentage basis. The decrease in U.S. shipments of subject imports accounted for \*\*\* of the total decrease in U.S. producers' and U.S. importers' U.S. shipments during 2017-19.<sup>3</sup> The combined value of U.S. producers' and U.S. importers' U.S. shipments of glass containers to wine manufacturers decreased by \*\*\* percent during 2017-19. Although the unit value of U.S. producers' U.S. shipments of glass containers to wine manufacturers increased from 2017 to 2019, it was lower than the unit values of U.S. shipments of subject imports, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources in each year during 2017-19.

U.S. producers' share of U.S. shipments of glass containers to wine manufacturers, by quantity, increased from \*\*\* percent in 2017 to \*\*\* percent in 2019 while subject import's share decreased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. Imports from Mexico's share of U.S. shipments of glass containers to beer manufacturers decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019 and imports from all other sources' share decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019.

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<sup>3</sup> Eleven importers reported U.S. shipments of subject imports to wine manufacturers of which seven reported fewer shipments in 2019 than in 2017. The decrease is a reflection of \*\*\* U.S. shipments, which accounted for \*\*\* percent of the total decrease. Three U.S. producers \*\*\* reported U.S. shipments to wine manufacturers. The decrease in U.S. shipments by \*\*\* from 2017 to 2019 were nearly offset by the increase in U.S. shipments by \*\*\*.

**Table F-2**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to wine manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Table continued on next page.

**Table F-2--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to wine manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Wine manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## U.S. shipments of glass containers to spirit manufacturers

Table F-3 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to spirit manufacturers. The combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to spirit manufacturers increased by \*\*\* percent from 2017 to 2019. U.S. producers' U.S. shipments, U.S. shipments of subject imports, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources each increased during 2017-19. The increase in U.S. producers' U.S. shipments was the largest on an aggregate basis while the increase in U.S. shipments of imports from Mexico was the largest on a percentage basis.<sup>4</sup> The combined value of U.S. producers' and U.S. importers' U.S. shipments of glass containers to spirit manufacturers increased by \*\*\* percent during 2017-19. Despite increasing, the unit value of U.S. producers' U.S. shipments of glass containers to spirit manufacturers was \*\*\* the unit value of U.S. shipments of subject imports in each year during 2017-19. It was lower than the unit value of U.S. shipments of imports from Mexico in 2017 and 2018, but higher in 2019.

U.S. producers' share of U.S. shipments of glass containers to spirit manufacturers, by quantity, increased from \*\*\* percent in 2017 to \*\*\* percent in 2019 while subject imports' share fluctuated year to year increasing from \*\*\* percent in 2017 to \*\*\* percent in 2018, but then decreasing to \*\*\* percent in 2019. Imports from Mexico's share of U.S. shipments of glass containers to spirit manufacturers increased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019 while imports from all other sources' share decreased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019.

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<sup>4</sup> \*\*\* of the four U.S. producers that reported U.S. shipments to spirit manufacturers, including the two largest U.S. producers, \*\*\*, reported more shipments in 2019 than in 2017. The change in U.S. shipments of imports from Mexico during 2017-19 is primarily a reflection of \*\*\* U.S. shipments, which accounted for \*\*\* of the total increase.

**Table F-3**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to spirit manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Table continued on next page.



**Table F-3--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to spirit manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Spirit manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## U.S. shipments of glass containers to other beverage manufacturers

Table F-4 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to other beverage manufacturers. After minimal change from 2017 to 2018, the combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to other beverage manufacturers decreased by \*\*\* percent from 2018 to 2019. U.S. producers' U.S. shipments, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources each decreased during 2017-19 while U.S. shipments of subject imports increased irregularly.<sup>5</sup> The combined value of U.S. producers' and U.S. importers' U.S. shipments of glass containers to other beverage manufacturers decreased irregularly by \*\*\* percent during 2017-19. The unit value of U.S. producers' U.S. shipments of glass containers to other beverage manufacturers was lower than the unit values of U.S. shipments of subject imports, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources in each year during 2017-19.

U.S. producers' share of U.S. shipments of glass containers to other beverage manufacturers, by quantity, increased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. Subject imports' share of U.S. shipments of glass containers to other beverage manufacturers exhibited the same trend as U.S. producers' share, increasing irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. Imports from Mexico's share of U.S. shipments of glass containers to other beverage manufacturers decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019 and imports from all other sources' share decreased from \*\*\* percent in 2017 and 2018 to \*\*\* percent in 2019.

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<sup>5</sup> Three of the six U.S. importers that reported U.S. shipments of subject imports to other beverage manufacturers reported more shipments in 2019 than in 2017. \*\*\* accounted for \*\*\* of the total increase during 2017-19. \*\*\* Increase in U.S. shipments of subject imports was greater than the combined decrease reported by \*\*\*.

**Table F-4**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to other beverage manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Table continued on next page.

**Table F-4--Continued**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to other beverage manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Other beverage manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## U.S. shipments of glass containers to food manufacturers

Table F-5 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to food manufacturers. After increasing by \*\*\* percent from 2017 to 2018, the combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to food manufacturers decreased by \*\*\* percent from 2018 to 2019, ending \*\*\* percent lower in 2019 than in 2017. U.S. producers' U.S. shipments, U.S. shipments of subject imports, and U.S. shipments of imports from Mexico each decreased during 2017-19 while U.S. shipments of imports from all other sources increased. The decrease in U.S. producers' U.S. shipments was far greater than the combined decrease in U.S. shipments of subject imports and U.S. shipments of imports from Mexico on an aggregate basis.<sup>6</sup>

Despite the decrease in quantity, the combined value of U.S. producers' and U.S. importers' U.S. shipments of glass containers to food manufacturers increased by \*\*\* percent during 2017-19. U.S. shipments of glass containers to food manufacturers had the second largest ratio to overall apparent U.S. consumption, by quantity, ranging from \*\*\* percent in 2017 to \*\*\* percent in 2019. The unit value of U.S. producers' U.S. shipments of glass containers to food manufacturers was lower than the unit values of U.S. shipments of subject imports, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources in each year during 2017-19.

U.S. producers' share of U.S. shipments of glass containers to food manufacturers, by quantity, decreased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. Subject imports' share of U.S. shipments of glass containers to food manufacturers also decreased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019. Imports from Mexico's share of U.S. shipments of glass containers to food manufacturers remained at \*\*\* percent from 2017 to 2019 while imports from all other sources' share increased irregularly from \*\*\* percent in 2017 to \*\*\* percent in 2019.

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<sup>6</sup> \*\*\* of the three producers that reported U.S. shipments to food manufacturers reported more shipments in 2019 than in 2017.

**Table F-5**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to food manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

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**Table F-5--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to food manufacturers, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Food manufacturers.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## **U.S. shipments of glass containers to other end users**

Table F-6 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to other end users. The combined quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to other end users decreased by \*\*\* percent during 2017-19 with the majority of the decrease occurring from 2017 to 2018. U.S. producers' U.S. shipments, U.S. shipments of imports from Mexico, and U.S. shipments of imports from all other sources each decreased during 2017-19 while U.S. shipments of subject imports increased. Despite the decrease in the quantity of U.S. producers' and U.S. importers' U.S. shipments of glass containers to other end users, the combined value increased irregularly by \*\*\* percent during 2017-19. The unit value of U.S. producers' U.S. shipments of glass containers to other end users was \*\*\* of the unit value of U.S. shipments of subject imports and \*\*\* of the unit value of U.S. shipments of imports from Mexico in each year during 2017-19.

U.S. producers' share of U.S. shipments of glass containers to other end users, by quantity, experienced modest change, decreasing from \*\*\* percent in 2017 to \*\*\* percent in 2019. Conversely, subject import's share of U.S. shipments of glass containers to other end users increased from \*\*\* percent in 2017 to \*\*\* percent in 2019. Imports from Mexico's share of U.S. shipments of glass containers to other end users decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019 and all other sources' share decreased from \*\*\* percent in 2017 to \*\*\* percent in 2019.



**Table F-6**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to other end users, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

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**Table F-6--Continued**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to other end users, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
Other end users.-- U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.-- China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

## U.S. shipments of glass containers to all end users

Table F-7 presents data on U.S. producers' and U.S. importers' U.S. shipments of glass containers to all end users.

**Table F-7**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to all end users, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Quantity (gross)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Value (1,000 dollars)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Unit value (dollars per gross)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	<b>Share of quantity (percent)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Table continued on next page.

**Table F-7--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments of glass containers to all end users, 2017-19**

Item	Calendar year		
	2017	2018	2019
	<b>Share of value (percent)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption quantity (percent)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***
	<b>Ratio to overall apparent consumption value (percent)</b>		
All end users.--			
U.S. producers' U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--			
China	***	***	***
Mexico	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
U.S. producers' and U.S. importers' U.S. shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires and from adjusted official U.S. import statistics for HTS statistical reporting numbers 7010.90.5005, 7010.90.5009, 7010.90.5015, 7010.90.5019, 7010.90.5025, 7010.90.5029, 7010.90.5035, 7010.90.5039, 7010.90.5045, 7010.90.5049 & 7010.90.5055, accessed April 7, 2020.

Figure F-1 presents data on the shares of U.S. shipments to each end user accounted by U.S. producers, subject imports, imports from Mexico, and imports from all other sources in 2019.

**Figure F-1**  
**Glass containers: Shares of U.S. shipments by end user, 2019**

\* \* \* \* \*



**APPENDIX G**

**U.S. SHIPMENTS OF GLASS CONTAINERS TO END USERS BY SIZE**





**Table G-1**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to beer manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	5 of 5
<=50,000 gross per year	***	***	***	3 of 5
All beer manufacturers	***	***	***	5 of 5
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	
<=50,000 gross per year	***	***	***	
All beer manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	0 of 6
<=50,000 gross per year	***	***	***	6 of 6
All beer manufacturers	***	***	***	6 of 6
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	
<=50,000 gross per year	***	***	***	
All beer manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	1 of 8
<=50,000 gross per year	***	***	***	8 of 8
All beer manufacturers	***	***	***	8 of 8
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to beer manufacturers with annual purchase requirements.--				
>50,000 gross per year	***	***	***	
<=50,000 gross per year	***	***	***	
All beer manufacturers	***	***	***	

Table continued on next page.

**Table G-1--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to beer manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	Quantity (gross)			Period change (percent)		
U.S. shipments to beer manufacturers with annual purchase requirements >50,000 gross reported by.-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▼***	▼***	▲***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▼***	▼***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to beer manufacturers with annual purchase requirements >50,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▼***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▼***	▼***	▲***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	Quantity (gross)			Period change (percent)		
U.S. shipments to beer manufacturers with annual purchase requirements <=50,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▼***
U.S. importers.-- China	***	***	***	▼***	▼***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▼***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▲***	▼***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to beer manufacturers with annual purchase requirements <=50,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▲***
U.S. importers.-- China	***	***	***	▼***	▼***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▼***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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

**Figure G-1**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to beer manufacturers**  
**based on annual purchase requirements, 2019**

\* \* \* \* \*

**Table G-2**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to wine manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	3 of 3
<=150,000 gross per year	***	***	***	3 of 3
All wine manufacturers	***	***	***	3 of 3
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	
<=150,000 gross per year	***	***	***	
All wine manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	0 of 11
<=150,000 gross per year	***	***	***	11 of 11
All wine manufacturers	***	***	***	11 of 11
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	
<=150,000 gross per year	***	***	***	
All wine manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	0 of 11
<=150,000 gross per year	***	***	***	11 of 11
All wine manufacturers	***	***	***	11 of 11
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to wine manufacturers with annual purchase requirements.-->150,000 gross per year	***	***	***	
<=150,000 gross per year	***	***	***	
All wine manufacturers	***	***	***	

Table continued on next page.

**Table G-2--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to wine manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to wine manufacturers with annual purchase requirements >150,000 gross reported by.-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▼***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to wine manufacturers with annual purchase requirements >150,000 gross reported by.-- U.S. producers	***	***	***	***	***	***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to wine manufacturers with annual purchase requirements <=150,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▲***
U.S. importers.-- China	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▲***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to wine manufacturers with annual purchase requirements <=150,000 gross reported by.-- U.S. producers	***	***	***	▲***	▼***	▲***
U.S. importers.-- China	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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

**Figure G-2**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to wine manufacturers**  
**based on annual purchase requirements, 2019**

\* \* \* \* \*

**Table G-3**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to spirit manufacturers based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	4 of 4
<=100,000 gross per year	***	***	***	3 of 4
All spirit manufacturers	***	***	***	4 of 4
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All spirit manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	0 of 12
<=100,000 gross per year	***	***	***	12 of 12
All spirit manufacturers	***	***	***	12 of 12
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All spirit manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	2 of 9
<=100,000 gross per year	***	***	***	9 of 9
All spirit manufacturers	***	***	***	9 of 9
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to spirit manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All spirit manufacturers	***	***	***	

Table continued on next page.

**Table G-3--Continued**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to spirit manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	Quantity (gross)			Period change (percent)		
U.S. shipments to spirit manufacturers with annual purchase requirements >100,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▲***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▲***	▲***
Combined U.S. producers and U.S. importers	***	***	***	▲***	▲***	▲***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to spirit manufacturers with annual purchase requirements >100,000 gross reported by.-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▲***	▲***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	Quantity (gross)			Period change (percent)		
U.S. shipments to spirit manufacturers with annual purchase requirements <=100,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▲***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▲***	▲***	▼***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to spirit manufacturers with annual purchase requirements <=100,000 gross reported by.-- U.S. producers	***	***	***	▲***	▲***	▲***
U.S. importers.-- China	***	***	***	▼***	▼***	▲***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▼***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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



**Figure G-3**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to spirit manufacturers**  
**based on annual purchase requirements, 2019**

\* \* \* \* \*

**Table G-4**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to other beverage manufacturers based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	3 of 3
<=100,000 gross per year	***	***	***	3 of 3
All other beverage manufacturers	***	***	***	3 of 3
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All other beverage manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	1 of 7
<=100,000 gross per year	***	***	***	7 of 7
All other beverage manufacturers	***	***	***	7 of 7
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All other beverage manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	1 of 7
<=100,000 gross per year	***	***	***	7 of 7
All other beverage manufacturers	***	***	***	7 of 7
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to other beverage manufacturers with annual purchase requirements.-->100,000 gross per year	***	***	***	
<=100,000 gross per year	***	***	***	
All other beverage manufacturers	***	***	***	

Table continued on next page.

**Table G-4--Continued**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to other beverage manufacturers based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to other beverage manufacturers with annual purchase requirements >100,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▲***	▼***
All import sources	***	***	***	▼***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▼***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to other beverage manufacturers with annual purchase requirements >100,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▲***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to other beverage manufacturers with annual purchase requirements <=100,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▲***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▼***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▼***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to other beverage manufacturers with annual purchase requirements <=100,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▲***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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

**Figure G-4**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to other beverage manufacturers based on annual purchase requirements, 2019**

\* \* \* \* \*

**Table G-5**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to food manufacturers**  
**based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	3 of 3
<=500,000 gross per year	***	***	***	3 of 3
All food manufacturers	***	***	***	3 of 3
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	
<=500,000 gross per year	***	***	***	
All food manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	0 of 8
<=500,000 gross per year	***	***	***	8 of 8
All food manufacturers	***	***	***	8 of 8
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	
<=500,000 gross per year	***	***	***	
All food manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	0 of 7
<=500,000 gross per year	***	***	***	7 of 7
All food manufacturers	***	***	***	7 of 7
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to food manufacturers with annual purchase requirements.-->500,000 gross per year	***	***	***	
<=500,000 gross per year	***	***	***	
All food manufacturers	***	***	***	

Table continued on next page.

**Table G-5--Continued**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments food manufacturers based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to food manufacturers with annual purchase requirements >500,000 gross reported by.-- U.S. producers	***	***	***	▼***	▲***	▼***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▲***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to food manufacturers with annual purchase requirements >500,000 gross reported by.-- U.S. producers	***	***	***	***	***	***
U.S. importers.-- China	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***
All import sources	***	***	***	***	***	***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	<b>Quantity (gross)</b>			<b>Period change (percent)</b>		
U.S. shipments to food manufacturers with annual purchase requirements <=500,000 gross reported by.-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▲***	▼***
	<b>Share of quantity (percent)</b>			<b>Period change (percentage points)</b>		
U.S. shipments to food manufacturers with annual purchase requirements <=500,000 gross reported by.-- U.S. producers	***	***	***	▼***	▼***	▲***
U.S. importers.-- China	***	***	***	▼***	▼***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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

**Figure G-5**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to food manufacturers**  
**based on annual purchase requirements, 2019**

\* \* \* \* \*

**Table G-6**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to other end users based on annual purchase requirements, 2017-19**

Item	Period			2017-19
	2017	2018	2019	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. producers' U.S. shipments to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	1 of 3
<=200,000 gross per year	***	***	***	3 of 3
All other end user manufacturers	***	***	***	3 of 3
	<b>Share of quantity (percent)</b>			
U.S. producers' U.S. shipments to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	
<=200,000 gross per year	***	***	***	
All other end user manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from China to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	1 of 11
<=200,000 gross per year	***	***	***	10 of 11
All other end user manufacturers	***	***	***	11 of 11
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from China to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	
<=200,000 gross per year	***	***	***	
All other end user manufacturers	***	***	***	
	<b>Quantity (gross)</b>			<b>Number of firms reporting data (count)<sup>1</sup></b>
U.S. importers' U.S. shipments of imports from nonsubject sources to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	2 of 9
<=200,000 gross per year	***	***	***	8 of 9
All other end user manufacturers	***	***	***	9 of 9
	<b>Share of quantity (percent)</b>			
U.S. importers' U.S. shipments of imports from nonsubject sources to other end user manufacturers with annual purchase requirements.-->200,000 gross per year	***	***	***	
<=200,000 gross per year	***	***	***	
All other end user manufacturers	***	***	***	

Table continued on next page.



**Table G-6--Continued**

**Glass containers: U.S. producers' and U.S. importers' U.S. shipment to other end users based on annual purchase requirements, 2017-19**

Item	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
	Quantity (gross)			Period change (percent)		
U.S. shipments to other end user manufacturers with annual purchase requirements >200,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▲***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▼***	▼***	▲***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▼***	▲***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to other end user manufacturers with annual purchase requirements >200,000 gross reported by-- U.S. producers	***	***	***	▲***	▲***	▼***
U.S. importers.-- China	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▼***	▼***	▲***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***
	Quantity (gross)			Period change (percent)		
U.S. shipments to other end user manufacturers with annual purchase requirements <=200,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	▲***	▲***	▲***
Nonsubject sources	***	***	***	▼***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▼***
Combined U.S. producers and U.S. importers	***	***	***	▼***	▲***	▼***
	Share of quantity (percent)			Period change (percentage points)		
U.S. shipments to other end user manufacturers with annual purchase requirements <=200,000 gross reported by-- U.S. producers	***	***	***	▼***	▼***	▼***
U.S. importers.-- China	***	***	***	▲***	▼***	▲***
Nonsubject sources	***	***	***	▼***	▲***	▼***
All import sources	***	***	***	▲***	▲***	▲***
Combined U.S. producers and U.S. importers	***	***	***	***	***	***

Note: Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

<sup>1</sup> The count of the number of firms reporting data represents the total number of firms within the specified category (e.g., beer, spirit, wine, et cetera) reporting data in gross greater than zero within that category. The counts do not represent the total number of overall U.S. producers or U.S. importers in the dataset as detailed in tables III-1 and IV-1, respectively.

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

**Figure G-6**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to other end users based on annual purchase requirements, 2019**

\* \* \* \* \*

**Figure G-7**  
**Glass containers: U.S. producers' and U.S. importers' U.S. shipments to end users based on annual purchase requirements, 2019**

\* \* \* \* \*

**Figure G-8**  
**Glass containers: Share of U.S. producers' and U.S. importers' U.S. shipments to end users based on annual purchase requirements, 2019**

\* \* \* \* \*

**APPENDIX H**  
**NONSUBJECT COUNTRY PRICE DATA**

Eight importers reported price data for glass containers imported from Mexico for all eight pricing products. Price data reported by these firms accounted for \*\*\* percent of U.S. commercial shipments from Mexico. These price items and accompanying data are comparable to those presented in tables V-3 to V-10. Price and quantity data for these eight products imported from Mexico and produced in the United States are shown in tables H-1 to H-8 and in figure H-1 to H-8 (along with prices and quantities for these products imported from China).

In comparing pricing data for imports from Mexico with U.S. producer pricing data, prices for product imported from Mexico were higher than prices for U.S.-produced product in all 84 instances. In comparing pricing data for imports from Mexico to those imported from China, prices for product imported from Mexico were lower than prices for product imported from China in 18 instances and higher in 41 instances. A summary of price differentials is presented in table H-9.<sup>1</sup>

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<sup>1</sup> Nonsubject price data were reported for products 4-6 from Mexico, while no subject price data were reported for products 4-6 from China.

**Table H-1**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 1 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 1: 750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed

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

**Table H-2**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 2 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 2: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed

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



**Table H-3**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 3 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 3: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed

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

**Table H-4**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 4 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 4: 12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Table H-5**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 5 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 5: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Table H-6**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 6 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 6: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed

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

**Table H-7**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 7 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 7: 16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style

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

**Table H-8**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 8 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 8: 32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style

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

**Figure H-1**

**Glass containers: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 1: 750 ml, clear (flint) Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight, bulk packed

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

**Figure H-2**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 2 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 2: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), bulk packed

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



**Figure H-3**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 3 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 3: 750 ml, antique green Claret style (Bordeaux) wine bottle, punt bottom, without frosting, coating, or other decoration, cork finish, 14 to 25 ounce bottle weight (inclusive), case packed

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

**Figure H-4**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 4 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 4: 12 oz., flint (clear) long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Figure H-5**

**Glass containers: Weighted-average f.o.b. prices and quantities of product 5 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 5: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, bulk packed

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

**Figure H-6**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 6 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 6: 12 oz., amber long neck style beverage bottle, without frosting, coating, or other decoration, pry-off crown finish, case packed

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

**Figure H-7**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 7 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 7: 16 oz., flint (clear) round salsa jar, without frosting, coating, or other decoration, 82-2040 mouth style

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

**Figure H-8**  
**Glass containers: Weighted-average f.o.b. prices and quantities of product 8 imported from Mexico, by quarters, January 2017-December 2019**

\* \* \* \* \*

Note: Product 8: 32 oz., flint (clear) round economy jar, without frosting, coating, or other decoration, 70-450 mouth style

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

**Table H-9**  
**Glass containers: Summary of underselling/(overselling), by country, January 2017-December 2019**

\* \* \* \* \*

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