Polyethylene Terephthalate (PET) Sheet from Korea and Oman

Investigation Nos. 731-TA-1455 and 731-TA-1457 (Final)

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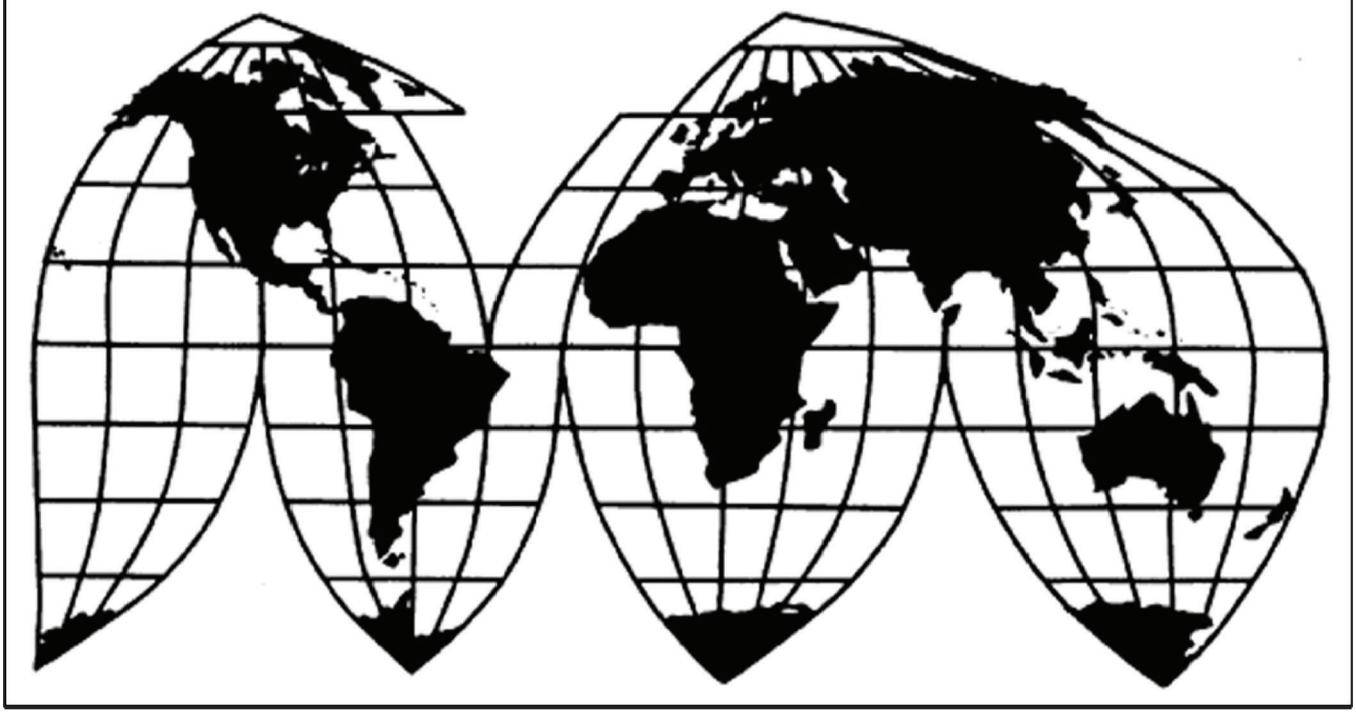
U.S. International Trade Commission



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Note.—Information that would reveal confidential operations of individual concerns may not be published.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 Nos. 731-TA-1455 and 731-TA-1457 (Final)

Polyethylene Terephthalate (PET) Sheet from Korea and Oman

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, 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 materially injured by reason of imports of polyethylene terephthalate (PET) sheet from Korea and Oman, provided for in subheading 3920.62.00 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").[2]

BACKGROUND

The Commission instituted these investigations effective July 9, 2019, following receipt of petitions filed with the Commission and Commerce by Advanced Extrusion, Inc., Rogers, Minnesota; Ex-Tech Plastics, Inc., Richmond, Illinois; and Multi-Plastics Extrusions, Inc., Hazleton, Pennsylvania. The Commission scheduled the final phase of the investigations following notification of preliminary determinations by Commerce that imports of PET sheet from Korea and Oman were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations 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 19, 2020 (85 FR 15796). 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 conducted its hearing

[1] The record is defined in § 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

[2] 85 FR 44276 and 85 FR 44278 (July 22, 2020).

on July 14, 2020, by video conference as set forth in procedures provided to the parties. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of polyethylene terephthalate ("PET") sheet from Korea and Oman found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").

I. Background

Parties to the Investigation. Advanced Extrusion, Inc., Ex-Tech Plastics, Inc., and Multi-Plastics Extrusions, Inc. (collectively, "Petitioners"), U.S. producers of PET sheet, filed the petitions in these investigations on July 9, 2019.[1] Petitioners appeared at the hearing with counsel and jointly filed prehearing and posthearing briefs and final comments.[2]

Two respondents participated actively in the final phase of these investigations. OCTAL SAOC-FZC ("OCTAL SAOC"), the sole producer/exporter of subject merchandise from Oman, and OCTAL Inc., the sole importer of subject merchandise from Oman (collectively, "OCTAL"), appeared at the hearing with counsel and jointly filed prehearing and posthearing briefs and final comments. No importer or exporter of subject merchandise from Korea participated actively as a party in the final phase of these investigations.

Data Coverage. U.S. industry data are based on the questionnaire responses of 25 firms that accounted for 88.9 percent of domestic production of PET sheet in 2019.[3] U.S. import data are based on proprietary Customs records and the questionnaire responses of 15 U.S. importers.[4] These importer questionnaire responses accounted for 82.6 percent of imports from Korea; *** percent of imports from Oman; 30.0 percent of imports from nonsubject sources; and 73.8 percent of imports from all sources under basket category HTS subheading

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[1] Confidential Report, Memorandum INV-SS-089 (Aug. 6, 2020) ("CR") at I-1-2; Public Report ("PR") at I-1-2. Petitioners also filed an antidumping duty petition concerning PET sheet from Mexico. The Commission in the preliminary phase determined that such imports were negligible, and accordingly terminated the investigation concerning PET sheet from Mexico. *See Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman*, Inv. Nos. 731-TA-1455-1457 (Preliminary), USITC Pub. 4970 at 3 (Sep. 2019) ("Preliminary Determinations"). Commissioner Stayin dissented from that determination. *Id*. at 13 n.91.

[2] In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted the hearing by videoconference, as set forth in procedures provided to the parties and announced on its website.

[3] CR/PR at I-5.

[4] CR/PR at I-5.

3920.62.0090 in 2018.[5] The Commission received usable foreign producer/exporter questionnaire responses from six firms: five Korean producers, whose production accounted for approximately *** percent of PET sheet production in Korea, and whose exports accounted for approximately *** percent of subject imports from Korea in 2019;[6] and OCTAL SAOC, whose production accounted for approximately *** percent of PET sheet production in Oman, and whose exports accounted for approximately *** percent of subject imports from Oman in 2019.[7]

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."[8] 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."[9] 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."[10]

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.[11]

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[5] Revision to Report, Memorandum INV-SS-102 (Aug. 17, 2020) ("Revision to Report") at I-5. Staff computed import coverage figures by dividing 2018 import quantities reported in questionnaire responses by 2018 import quantities reported in proprietary Customs data. The year 2018 was used to calculate import coverage because proprietary Customs data were unavailable for all of 2019. *See* CR/PR at I-5 n.11 & IV-1 n.4.

[6] CR/PR at VII-3.

[7] Revision to Report at VII-10.

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(4)(A).

[10] 19 U.S.C. § 1677(10).

[11] 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).

Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at LTFV is "necessarily the starting point of the Commission's like product analysis."[12] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[13] The decision regarding the appropriate domestic like product(s) 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.[14] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[15] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[16]

B. Product Description

Commerce defined the imported merchandise within the scope of these investigations as:

> {R}aw, pretreated, or primed polyethylene terephthalate sheet, whether extruded or coextruded, in nominal thicknesses of equal to or greater than 7

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[12] *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, 714-15 (Fed. Cir. 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[13] *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).

[14] *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).

[15] *See*, *e.g.*, S. Rep. No. 96-249 at 90-91 (1979).

[16] *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.").

> mil (0.007 inches or 177.8 µm) and not exceeding 45 mil (0.045 inches or 1143 µm) ("PET sheet"). The scope includes all PET sheet whether made from prime (virgin) inputs or recycled inputs, as well as any blends thereof. The scope includes all PET sheet meeting the above specifications regardless of color, surface treatment, coating, lamination, or other surface finish.
>
> The merchandise subject to this investigation is properly classified under statistical reporting number 3920.62.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS statistical reporting number is provided for convenience and customs purposes, the written description of the merchandise is dispositive.[17]

PET sheet is formed from PET resin, which is often sold in the form of pellets or chips.[18] PET sheet is primarily used in a wide variety of food, beverage, and retail packaging.[19] Specific end uses include products such as food trays and containers, carry-out containers, fruit and vegetable clamshell containers and trays, drinking cups, medical trays, paint tray liners, consumer packaging, and packaging for electrostatic sensitive devices (such as integrated computer circuits).[20] PET sheet is also used in medical face shields intended to reduce the spread of COVID-19.[21]

C. Domestic Like Product Analysis

In the preliminary determinations, the Commission defined a single domestic like product consisting of all PET sheet, coextensive with the scope.[22] The Commission found that all domestically produced PET sheet products use the same basic chemistry and raw materials, are produced using similar manufacturing facilities and production processes, have the same range of end uses, are sold through the same channels of distribution, are largely

[17] *Polyethylene Terephthalate Sheet from the Republic of Korea: Final Determination of Sales at Less Than Fair Value*, 85 Fed. Reg. 44276, 44277 (Jul. 22, 2020); *Polyethylene Terephthalate Sheet from the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*, 85 Fed. Reg. 44278, 44279 (Jul. 22, 2020).

[18] CR/PR at I-8.

[19] CR/PR at I-8 & II-1.

[20] CR/PR at I-8 & II-1.

[21] CR/PR at I-8; Hearing Transcript at 8-9 (Rosenthal), 28-29 (Parsio), 34 (Thibado), & 40 (Grayczyk).

[22] Preliminary Determinations, USITC Pub. 4970 at 7.

interchangeable, and are sold at roughly comparable prices.[23] The record in the final phase of these investigations contains no new information that detracts from this analysis,[24] and the parties agree with the domestic like product definition from the preliminary phase.[25] Accordingly, for the reasons set forth in the preliminary determinations, we define a single domestic like product consisting of all PET sheet, coextensive with the scope.

III. Domestic Industry

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."[26] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

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.[27] Exclusion of such a producer is within the

[23] Preliminary Determinations, USITC Pub. 4970 at 8.

[24] *See generally* CR at I-8-9. While testimony in the final phase of these investigations highlighted an additional use for PET sheet – in medical face shields used to reduce the spread of COVID-19 – this does not have any implications for our domestic like product analysis.

[25] Petitioners' Prehearing Brief, EDIS Doc. 714066 (Jul. 7, 2020) at 3; OCTAL's Prehearing Brief, EDIS Doc. 714088 (Jul. 7, 2020) at 6.

[26] 19 U.S.C. § 1677(4)(A).

[27] *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).

Commission's discretion based upon the facts presented in each investigation.[28]

Four domestic producers (***) are subject to possible exclusion from the domestic industry under the related parties provision because each imported subject merchandise during the 2017-19 period of investigation ("POI").[29] A fifth firm, domestic producer ***, is a related party because it is related to both an exporter and importer of subject merchandise through common ownership and control.[30]

In the preliminary determinations, the Commission found that appropriate circumstances did not exist to exclude *** from the domestic industry,[31] but that appropriate circumstances did exist to exclude *** from the domestic industry.[32] Accordingly, the Commission defined the domestic industry as all U.S producers of PET sheet, except ***.[33]

In the final phase of these investigations, Petitioners argue that appropriate circumstances continue to exist to exclude *** from the domestic industry, but do not seek the

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[28] 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. 1161, 1168 (Ct. Int'l Trade 1992).

[29] CR/PR at III-17 & Table III-8.

[30] 19 U.S.C. § 1677(4)(B)(ii)(III). Domestic producer *** is 100 percent owned by ***. Both *** are listed by *** in its domestic producer questionnaire as "sister companies." ***; CR at Table III-2. Moreover, ***.

[31] Preliminary Determinations, USITC Pub. 4970 at 9-11; Confidential Preliminary Views, EDIS Doc. 689026, at 13-17. In reaching these findings, the Commission observed that the domestic production of both *** *** exceeded each producer's subject imports, and that, because *** did not submit a U.S. producer questionnaire, there were no data from this producer to exclude. *Id*. The Commission did not assess whether *** should be excluded as a related party in the preliminary determinations, as *** only reported imports from nonsubject sources in the preliminary phase of these investigations. *See* Preliminary Phase Report, Memorandum INV-RR-083, at III-1 n.3, III-17 n.12, & IV-3 n.4.

[32] Preliminary Determinations, USITC Pub. 4970 at 10-11; Confidential Preliminary Views at 14-16. In reaching this finding, the Commission noted, among other things, that the ratio of its affiliate's subject imports to *** U.S. production was *** throughout the preliminary phase POI. *Id*.

[33] Preliminary Determinations, USITC Pub. 4970 at 9-11; Confidential Preliminary Views at 13-17.

exclusion of any other domestic producer pursuant to the related parties provision.[34] OCTAL states that it accepts the Commission's preliminary phase definition of the domestic industry as all U.S. PET sheet producers except ***.[35]

Analysis. We examine below for each of the five related party producers whether appropriate circumstances exist to exclude it from the domestic industry.

*** *** was responsible for *** percent of U.S. production of PET sheet in 2019; it is the *** largest of the *** reporting domestic producers.[36] It *** the petitions.[37] It imported *** pounds of subject merchandise from Korea in 2017 and *** pounds in 2018.[38] The ratio of its subject imports to U.S. production was *** percent in 2017, *** percent in 2018, and *** in 2019.[39] *** indicated that it imported because ***.[40] Given *** ratio of subject imports to U.S. production, its primary interest appears to be in domestic production. In light of this, and the lack of contrary argument, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

*** *** was responsible for *** percent of U.S. production of PET sheet in 2019; it is the *** largest of the *** reporting domestic producers.[41] It *** the petitions.[42] It imported *** pounds of subject merchandise from Korea in 2017 and *** pounds in 2018.[43] The ratio of its subject imports to production was *** percent in 2017, *** percent in 2018, and *** in 2019.[44] *** indicated that its imports were ***.[45] Given *** ratio of subject imports to U.S. production, its primary interest appears to be in domestic production. In light of this, and the lack of any contrary argument, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

*** *** did not submit U.S. producer or importer questionnaires during the final phase of these investigations. However, during the preliminary phase, it indicated that its subject

[34] Petitioners' Prehearing Brief at 7-9.

[35] OCTAL's Prehearing Brief at 6.

[36] CR/PR at Table III-1.

[37] CR/PR at Table III-1.

[38] CR/PR at Table III-8.

[39] CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019. *Id*.

[40] CR/PR at Table III-8.

[41] CR/PR at Tables III-1 & III-4.

[42] CR/PR at Table III-1.

[43] CR/PR at Table III-8.

[44] CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019. *Id*.

[45] CR/PR at Table III-8.

imports were *** pounds in 2018, while its U.S. production of PET sheet that year was *** pounds.[46] During the final phase of these investigations, *** has indicated via correspondence that its U.S. production of PET sheet in 2019 was *** pounds.[47] Accordingly, the information available in the record indicates that its primary interest is in domestic production. In light of this, the lack of data to exclude given it did not submit questionnaires, and the lack of any contrary argument, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

*** was responsible for *** percent of U.S. production of PET sheet in 2019; it is the *** largest of the *** reporting domestic producers.[48] It *** and ***.[49] *** imports of subject merchandise *** were *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019.[50] The ratio of *** subject imports to *** production was *** percent in 2017, *** percent in 2018, and *** percent in 2019.[51] *** indicated that *** imports subject merchandise *** because ***.[52] Given the firm's *** domestic production relative to *** subject imports throughout the POI, the primary interest of *** appear to be in importation of subject merchandise rather than domestic production. In light of this, and the lack of any contrary argument, we find that appropriate circumstances exist to exclude *** from the domestic industry as a related party.

*** *** was responsible for *** percent of U.S. production of PET sheet in 2019; it is the *** largest of the *** reporting domestic producers.[53] It *** the petitions.[54] It imported *** pounds of subject merchandise from Korea in 2018 and *** pounds in 2019.[55] The ratio of its subject imports to U.S. production was *** in 2017, *** percent in 2018, and *** percent in 2019.[56] *** indicated that its imports were ***.[57] Given *** ratio of subject imports to its U.S. production, its primary interest appears to be in domestic production. In light of this, and the

[46] CR/PR at III-17 n.8.
[47] CR/PR at III-17 n.8.
[48] CR/PR at Table III-1.
[49] CR/PR at Table III-1; *** producer questionnaire at I-4.
[50] Revision to Report at Table III-8. This *** is ***. *Id*. at III-17 n.9.
[51] Revision to Report at Table III-8. *** U.S. production of PET sheet was *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019. *Id*.
[52] CR/PR at Table III-8.
[53] CR/PR at Table III-1.
[54] CR/PR at Table III-1.
[55] CR/PR at Table III-8.
[56] CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019. *Id*.
[57] CR/PR at Table III-8.

lack of any contrary argument, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.

In light of the above, and consistent with our definition of the domestic like product, we define the domestic industry as all domestic producers of PET sheet except ***.

IV. Cumulation[58]

For purposes of evaluating the volume and effects for a determination of material injury by reason of subject imports, section 771(7)(G)(i) of the Tariff Act requires the Commission to cumulate subject imports from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with the domestic like product in the U.S. market. In assessing whether subject imports compete with each other and with the domestic like product, the Commission generally has considered four factors:

(1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;

(2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;

(3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and

[58] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than three percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall generally be deemed negligible. 19 U.S.C. § (24)(A)(i). The exceptions to this general provision are not pertinent here.

During the 12-month period (July 2018 through June 2019) preceding the filing of the petitions, subject imports from Korea accounted for *** percent of total U.S. imports of PET sheet by quantity, and subject imports from Oman accounted for *** percent. *See* CR/PR at Table IV-3. As imports from each subject country exceed the pertinent statutory threshold, we find that subject imports from Korea and Oman are not negligible.

(4) whether the subject imports are simultaneously present in the market.[59]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.[60] Only a "reasonable overlap" of competition is required.[61]

In the preliminary phase of these investigations, the Commission found a reasonable overlap of competition between subject imports from Korea and Oman, and among subject imports from each source and the domestic like product.[62] Accordingly, the Commission cumulated subject imports from Korea and Oman for its present material injury analysis.[63]

In the final phase of these investigations, Petitioners argue that the Commission should continue to cumulate subject imports, as the statutory factors supporting cumulation are met.[64] OCTAL states that it does not oppose cumulation for purposes of the Commission's present material injury analysis.[65]

The statutory threshold for cumulation is satisfied in these investigations because Petitioners filed the antidumping duty petitions with respect to subject imports from Korea and Oman on the same day, July 9, 2019.[66] We thus examine whether there is a reasonable overlap of competition between subject imports from Korea and Oman and among subject imports from each source and the domestic like product.

Fungibility. Substantial majorities of responding producers, importers, and purchasers, when comparing the domestic like product with imports from each subject source and when comparing imports from the two subject sources, reported that such PET sheet is always or

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[59] *See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), *aff'd*, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int'l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

[60] *See*, *e.g.*, *Wieland Werke, AG v. United State*s, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

[61] The Statement of Administrative Action (SAA) to the Uruguay Round Agreements Act (URAA), expressly states that "the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition." H.R. Rep. No. 103-316, Vol. I at 848 (1994) (*citing Fundicao Tupy, S.A. v. United States*, 678 F. Supp. at 902); *see Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int'l Trade 1998) ("cumulation does not require two products to be highly fungible"); *Wieland Werke, AG*, 718 F. Supp. at 52 ("Completely overlapping markets are not required.").

[62] Preliminary Determinations, USITC Pub. 4970 at 19.

[63] Preliminary Determinations, USITC Pub. 4970 at 21.

[64] Petitioners' Prehearing Brief at 9-14.

[65] OCTAL's Prehearing Brief at 7.

[66] CR/PR at I-2. None of the statutory exceptions to cumulation applies.

frequently interchangeable.[67] Moreover, majorities or pluralities of purchasers reported that the domestic like product and subject imports from Oman were comparable with respect to 15 of 22 purchasing factors,[68] and, while there were only two purchaser comparisons of subject imports from Korea with either the domestic like product or subject imports from Oman, at least one purchaser reported that the products being compared were comparable for each factor.[69] Finally, majorities of U.S. producers and importers, and at least half of responding purchasers, reported that non-price differences were only sometimes or never a significant factor in purchasing decisions for PET sheet when comparing the domestic like product with

[67] CR/PR at Table II-10. In comparing the domestic like product with subject imports from Korea, 16 of 17 U.S. producers reported that they were always or frequently interchangeable; nine of 10 U.S. importers reported that they were always or frequently interchangeable; and all responding purchasers reported that they were always or frequently interchangeable. *Id*.

In comparing the domestic like product with subject imports from Oman, 16 of 21 U.S. producers reported that they were always or frequently interchangeable; six of seven U.S. importers reported that they were always or frequently interchangeable; and six of nine purchasers reported that they were always or frequently interchangeable. *Id*.

In comparing subject imports from Korea with subject imports from Oman, 12 of 15 U.S. producers reported that they were always or frequently interchangeable; six of seven U.S. importers reported that they were always or frequently interchangeable; and all purchasers reported that they were always or frequently interchangeable. *Id*.

[68] CR/PR at Table II-9. Majorities or pluralities of purchasers found the domestic like product superior to subject imports from Oman with respect to delivery time and PET is R-PET, and found the domestic like product inferior to subject imports from Oman with respect to carbon footprint, PET is D-PET, product consistency, and price. *Id*. An equal number of purchasers found the domestic like product comparable with subject imports from Oman as found the domestic like product inferior to such imports with respect to the following purchasing factor: single producer able to provide all your PET sheet needs. *Id*.

[69] CR/PR at Table II-9.

imports from each subject source or comparing imports from the two subject sources.[70]

Channels of Distribution. Subject imports from both Korea and Oman and the domestic like product share the same general channels of distribution. During the POI, majorities of U.S. shipments from domestic producers and importers of subject merchandise from Korea and Oman were to ***.[71]

Geographic Overlap. U.S. producers, as well as importers from Korea and Oman, reported selling PET sheet to all regions in the contiguous United States.[72]

Simultaneous Presence in Market. Subject imports from both Korea and Oman were present in the U.S. market in each month during the POI.[73] The domestic like product was also present throughout the POI.[74]

Conclusion. The record indicates that subject imports from each source are fungible with both the domestic like product and each other, are sold in the same channels of distribution and are present in the same geographic markets as both the domestic like product and each other, and have been simultaneously present in the U.S. market. Consequently, we find that there is a reasonable overlap of competition between and among subject imports and the domestic like product. We accordingly consider subject imports from Korea and Oman on a cumulated basis for our analysis of whether the domestic industry is materially injured by reason of subject imports.

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[70] CR/PR at Table II-12. In comparing the domestic like product with subject imports from Korea, 15 of 17 U.S. producers reported that differences other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet; five of nine U.S. importers reported that they were never significant; and two of three purchasers reported that they were only sometimes or never significant. *Id*.

In comparing the domestic like product with subject imports from Oman, 14 of 21 U.S. producers reported that differences other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet; four of six U.S. importers reported that they were only sometimes or never significant; and five of ten purchasers reported that they were only sometimes or never significant. *Id*.

In comparing subject imports from Korea with subject imports from Oman, 11 of 13 U.S. producers reported that differences other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet; three of five U.S. importers reported that they were never significant; and all purchasers reported that they were only sometimes or never significant. *Id*.

[71] CR/PR at Table II-1.

[72] CR/PR at II-3 & Table II-2.

[73] CR/PR at Table IV-6.

[74] CR/PR at Tables V-3-6 & E-1-4.

V. Material Injury by Reason of Subject Imports

Based on the record in the final phase of these investigations, we find that an industry in the United States is materially injured by reason of cumulated subject imports from Korea and Oman.

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.[75] In making this 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.[76] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[77] 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.[78] 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."[79]

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,[80] 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.[81] 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

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[75] 19 U.S.C. §§ 1671d(b), 1673d(b).

[76] 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).

[77] 19 U.S.C. § 1677(7)(A).

[78] 19 U.S.C. § 1677(7)(C)(iii).

[79] 19 U.S.C. § 1677(7)(C)(iii).

[80] 19 U.S.C. §§ 1671d(b), 1673d(b).

[81] *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'g,* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

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.[82]

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.[83] In performing its examination, however, the Commission need not isolate

[82] 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).

[83] Uruguay Round Agreements Act Statement of Administrative Action (SAA), H.R. Rep. 103-316, vol. I at 851-52 (1994) ("{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.

the injury caused by other factors from injury caused by unfairly traded imports.[84] 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.[85] It is clear that the existence of injury caused by other factors does not compel a negative determination.[86]

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."[87] 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

[84] 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." (emphasis in original)); *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.").

[85] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

[86] *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.").

[87] *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*.

sources to the subject imports." [88] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[89]

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.[90] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[91]

B. Conditions of Competition and the Business Cycle

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

1. Captive Production

The domestic industry captively consumes a portion of its PET sheet production in the manufacture of downstream articles. We therefore consider the applicability of the statutory captive production provision, and whether we are required to focus our analysis primarily on the merchant market when assessing market share and the factors affecting the financial

[88] *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.

[89] *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.").

[90] We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[91] *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.").

performance of the domestic industry.[92]

Petitioners argue that the Commission should apply the captive production provision, as it did in the preliminary determinations.[93] OCTAL does not dispute the provision's application.[94]

Threshold Criterion. The captive production provision can be applied only if, as a threshold matter, significant production of the domestic like product is internally transferred and significant production is sold in the merchant market. In these investigations, internal transfers accounted for between *** percent and *** percent of the domestic industry's U.S. shipments of PET sheet for each year during the POI.[95] Commercial shipments accounted for between *** percent and *** percent of the domestic industry's U.S. shipments on an annual basis during this period.[96] In light of these data, we find the threshold criterion satisfied.

First Statutory Criterion. In applying the first statutory criterion, we consider whether any of the domestic like product that is internally transferred for processing into downstream

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[92] The captive production provision, 19 U.S.C. § 1677(7)(C)(iv), as amended by the Trade Preferences Extension Act of 2015, provides:

> (iv) CAPTIVE PRODUCTION – If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that-
>
> (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product, and
>
> (II) the domestic like product is the predominant material input in the production of that downstream article,
>
> then the Commission, in determining market share and the factors affecting financial performance set forth in clause (iii), shall focus primarily on the merchant market for the domestic like product.

The SAA indicates that where a domestic like product is transferred internally for the production of another article coming within the definition of the domestic like product, such transfers do not constitute internal transfers for the production of a "downstream article" for purposes of the captive production provision. SAA at 853. The Trade Preferences Extension Act of 2015 eliminated what had been the third statutory criterion of the captive production provision. Pub. L. 114-27, § 503(c).

[93] Petitioners' Prehearing Brief at 15-18.

[94] OCTAL's Prehearing Brief at 1; OCTAL's Posthearing Brief at 3; Attachment A to OCTAL's Posthearing Brief at 9-10.

[95] *Derived from* CR/PR Table III-6 & *** Producer Questionnaire Response (using U.S. producers' U.S. shipments data, excluding ***, and determining the percentage of total U.S. shipments that internal transfers accounted for by aggregating internal consumption and transfers to related firms).

[96] *Derived from* CR/PR Table III-6 & *** Producer Questionnaire Response (using U.S. producers' U.S. shipments data, excluding ***).

articles is in fact sold on the merchant market.[97] No domestic producers in these investigations reported diverting PET sheet that was to be internally transferred to the merchant market.[98] We therefore find the first criterion satisfied.

Second Statutory Criterion. In applying the second statutory criterion, we generally determine whether the domestic like product is the predominant material input into a downstream product by assessing its share of the raw material cost of the downstream product.[99] Reporting domestic producers indicated that PET sheet accounted for a majority of the cost of thermoformed food packaging products.[100] We therefore find the second criterion satisfied.

Conclusion. We conclude that the criteria for the captive production provision's application are satisfied, and accordingly, we focus primarily on the merchant market in analyzing the market share and financial performance of the domestic industry.

2. Demand Conditions

U.S. demand for PET sheet is driven by demand for its end use products.[101] As previously discussed, these include food trays, take out containers, clamshell containers for produce, drinking cups, medical trays, paint tray liners, consumer packaging, and packaging for electro-static sensitive devices,[102] as well as face shields used to reduce the spread of COVID-

[97] *See*, *e.g.*, *Hot-Rolled Steel Products from Argentina and South Africa*, Inv. Nos. 701-TA-404, 731-TA-898, 905 (Final), USITC Pub. 3446 at 15-16 (Aug. 2001); *Certain Cold-Rolled Steel Products from Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Turkey and Venezuela*, Inv. Nos. 701-TA-393 and 731-TA-829-40 (Final) (Remand), USITC Pub. 3691 at 2 & n.19 (May 2004).

[98] CR/PR at III-21.

[99] *See generally*, *e.g.*, *Polyethylene Terephthalate Film, Sheet and Strip from Brazil, China, Thailand, and the United Arab Emirates*, Inv. Nos. 731-TA-1131-1134 (Final), USITC Pub. 4040 at 17 n.103 (Oct. 2008); *Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan*, Inv. Nos. 701-TA-415 and 731-TA-933-934 (Final), USITC Pub. 3518 at 11 & n.51 (June 2002). The Commission has construed "predominant" material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value. *See Polyvinyl Alcohol from Germany and Japan*, Inv. Nos. 731-TA-1015-16 (Final), USITC Pub. 3604 at 15 n.69 (June 2003).

[100] *See* CR/PR at II-8 (50 to 64 percent) & III-22 (61 to 75 percent). The information available indicates that thermoformed food packaging containers are the main downstream articles produced as a result of domestic producers' internal transfers. *Id*. at II-8 ("The cost share of PET sheet is large in most of its end-use products (mainly thermoformed PET containers)").

[101] CR/PR at II-8.

[102] CR/PR at I-8 & II-8.

19.[103] Majorities of responding U.S. producers and purchasers, and a plurality of responding importers, reported that U.S. demand for PET sheet increased since the beginning of the POI.[104] In the merchant market, apparent U.S. consumption of PET sheet increased overall by *** percent between 2017 and 2019, declining from *** pounds in 2017 to *** pounds in 2018 and then increasing to *** pounds in 2019.[105]

3. Supply Conditions

The domestic industry was the second largest source of supply to the U.S. merchant market throughout most of the POI.[106] Its share of apparent U.S. consumption in the merchant market decreased overall by *** percentage points from 2017 to 2019, increasing from *** percent in 2017 to *** percent in 2018 and then decreasing to *** percent in 2019.[107]

Cumulated subject imports were the largest source of supply to the U.S. merchant market throughout most of the POI.[108] Their share of apparent U.S. consumption in the merchant market increased overall by *** percentage points from 2017 to 2019, initially decreasing from *** percent in 2017 to *** percent in 2018 and then increasing to *** percent

[103] CR/PR at I-8; Hearing Transcript at 8-9 (Rosenthal), 28-29 (Parsio), 34 (Thibado), & 40 (Grayczyk).

[104] CR/PR at Table II-4.

[105] CR/PR at Table C-4 (merchant market data excluding ***). In the total market, apparent U.S. consumption of PET sheet increased by *** percent from 2017 to 2019, from *** pounds in 2017 to *** pounds in 2018 and *** pounds in 2019. *See* CR/PR at Table C-3 (total market data excluding ***). Petitioners contend that there was an increase in demand for PET sheet in the second quarter of 2020 due to pandemic-related demand for face shields. *See* Hearing Transcript at 29 (Parsio), 34 (Thibado), & 40 (Grayczyk).

[106] During 2018, the domestic industry was the largest source of supply to the U.S. merchant market by a small margin. *See* CR/PR at Table C-4.

[107] CR/PR at Table C-4. The domestic industry's share of apparent U.S. consumption in the total market decreased overall by *** percentage points between 2017 and 2019, increasing from *** percent in 2017 to *** percent in 2018 and then decreasing to *** percent in 2019. *See* CR/PR at Table C-3. As discussed, U.S. producer *** was excluded from the domestic industry as a related party. Its share of apparent U.S. consumption in the merchant market increased from *** percent in 2017 to *** percent in 2018 and 2019. *See* CR/PR at Table C-4. *** share of apparent U.S. consumption in the total market increased from *** percent in 2017 and 2018 to *** percent in 2019. *See* CR/PR at Table C-3.

[108] During 2018, cumulated subject imports were the second largest source of supply to the U.S. merchant market by a small margin. *See* CR/PR at Table C-4.

in 2019.[109] OCTAL SAOC, the sole producer in Oman, shut down production for six weeks in 2018, from the end of May through mid-July, due to damage from Cyclone Mekunu.[110] As a result, OCTAL SAOC was unable to supply its U.S. customers from July through September 2018.[111]

Nonsubject imports were the smallest source of supply to the U.S. merchant market throughout the POI. Nonsubject imports' share of apparent U.S. consumption in the merchant market increased overall by *** percentage points from 2017 to 2019, increasing from *** percent in 2017 to *** percent in 2018 and then decreasing to *** percent in 2019.[112] The leading source of nonsubject imports during the POI was Canada.[113]

4. Substitutability and Other Conditions

We find that there is a high degree of substitutability between domestically produced PET sheet and cumulated subject imports.[114] As previously discussed, substantial majorities of responding market participants, in comparisons between and among PET sheet from Korea and Oman and the domestic like product, reported that such PET sheet is always or frequently interchangeable;[115] majorities or pluralities of purchasers reported that the domestic like product and subject imports from Oman were comparable in 15 of 22 purchasing factors;[116] and, in comparisons of subject imports from Korea with either the domestic like product or subject imports from Oman, at least one of the two responding purchasers reported that the products being compared were comparable for each purchasing factor.[117]

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[109] CR/PR at Table C-4. Cumulated subject imports' share of apparent U.S. consumption in the total market increased overall by *** percentage points between 2017 and 2019, decreasing from *** percent in 2017 to *** percent in 2018 and then increasing to *** percent in 2019. *See* CR/PR at Table C-3.

[110] CR/PR at II-7, II-9, II-16, & IV-2-3. Tropical Cyclone Mekunu made landfall in southwest Oman on May 25, 2018, causing flooding, destructive winds, and a storm surge. *See* Exhibit 2 to OCTAL's Prehearing Brief.

[111] CR/PR at IV-2-3. Cyclone Mekunu caused an estimated *** pound reduction in subject imports from Oman in 2018. *See* CR/PR at IV-3 n.5; OCTAL's Prehearing Brief at 12.

[112] CR/PR at Table C-4. Nonsubject imports' share of apparent U.S. consumption in the total market increased overall by *** percentage points between 2017 and 2019, from *** percent in 2017 to *** percent in 2018 and *** percent in 2019. *See* CR/PR at Table C-3.

[113] CR/PR at II-6 & Table IV-2.

[114] CR/PR at II-11.

[115] CR/PR at Table II-10.

[116] CR/PR at Table II-9.

[117] CR/PR at Table II-9.

OCTAL contends that it manufactures PET sheet in Oman using a patented and unique production process resulting in a product, "D-PET," that is superior to traditionally produced PET sheet, including the domestic like product.[118] However, as discussed above, purchasers generally found the domestic like product and subject imports from Oman comparable.[119] In particular, majorities of purchasers found the domestic like product comparable to subject imports from Oman in factors of product clarity, product formability, and quality meets industry standards, each of which was deemed very important by at least 14 of 17 reporting purchasers.[120] By contrast, most purchasers (12 of 17) rated "PET is D-PET" as not important or only somewhat important as a purchasing factor.[121] Thus, we do not find that D-PET's physical qualities or its other characteristics meaningfully limit the substitutability between subject imports from Oman and the domestic like product.[122] Indeed, the record shows that

[118] *See* OCTAL's Prehearing Brief at 18-27. Specifically, OCTAL contends that D-PET has better optical properties, better formability, more consistent thickness, more consistent intrinsic viscosity, and a lower carbon footprint than traditionally produced PET sheet, including the domestic like product. *Id*. OCTAL has emphasized reporting from certain purchasers as to the importance of D-PET's purportedly superior quality and lower carbon footprint in their decisions to purchase PET sheet from Oman. We discuss these arguments below in section V.D.

[119] OCTAL submits that the views of purchasers that did not buy D-PET over the POI cannot be considered credible evidence in assessing the degree of substitutability between subject imports from Oman and the domestic like product. *See* Attachment A to OCTAL's Posthearing Brief at 15. However, neither OCTAL nor the record provides any indication that those purchasers that compared the domestic product and subject imports from Oman lacked a basis for their comparison. We observe in this respect that the number of purchasers that provided comparisons of the domestic like product and subject imports from Oman (nine) is a subset of the 17 purchasers that responded overall, and much greater than the number of purchasers that offered comparisons of subject Imports from Korea (two). *Compare* CR/PR Tables II-7 & II-9.

[120] CR/PR at Tables II-7 & II-9. A majority of purchasers also reported that U.S.-produced product was comparable on quality exceeds industry standards. *See* CR/PR at Table II-9.

[121] *See* CR/PR at Table II-7.

[122] In support of its contention that D-PET is of a higher quality than the domestic like product, OCTAL submits a purchaser's "vendor transaction summaries," apparently showing that this purchaser had to reject domestically produced PET sheet for quality reasons at a higher rate than PET sheet from OCTAL. *See* Attachments C and D of Exhibit 1 to OCTAL's Posthearing Brief. Likewise, OCTAL submits a sworn statement from another purchaser asserting that its scrap rate (*i.e.*, the percentage of its output so defective that it could not be delivered to the customer) was higher when using domestically produced PET sheet than when using D-PET. *See* Exhibit 5 to OCTAL's Posthearing Brief. However, other evidence in the record indicates that domestically produced PET sheet had a low rejection rate, and that a purchaser's scrap rate is due to variations in its production process, not the type of PET sheet used. *See* Exhibit 5 to Petitioners' Posthearing Brief; Exhibit 9 to Petitioners' Posthearing Brief.

purchasers do use the two products interchangeably, such as when supply from Oman became disrupted by cyclone damage and purchasers turned to the domestic like product.[123]

We find that price is an important factor in purchasing decisions for PET sheet. Nearly all responding purchasers (16 of 17) reported that price is a very important factor in their PET sheet purchasing decisions.[124] Moreover, as discussed, majorities of U.S. producers and importers, and at least half of responding purchasers, reported that non-price differences were only sometimes or never significant in purchasing decisions for PET sheet in comparisons between and among the domestic like product and subject imports from Korea and Oman.[125] In the same vein, the majority of purchasers (11 of 17) reported that they usually purchase the lowest-priced PET sheet,[126] and more purchasers (20 firms) ranked price as among the top three factors they consider in their purchasing decisions for PET sheet than any other factor besides quality (21 firms).[127] Thus, while other factors may also be important, the record clearly indicates that price is an important factor in purchasing decisions for PET sheet.[128]

The major raw material input used to produce PET sheet is PET resin.[129] As a share of the domestic industry's cost of goods sold ("COGS") in the merchant market, raw material costs ranged from *** to *** percent on an annual basis during the POI.[130] As a share of the domestic industry's COGS in the total market, raw material costs ranged from *** to *** percent on an annual basis during the POI.[131]

The majority (57.1 percent) of domestic producers' U.S. commercial shipments of PET sheet in 2019 were spot sales.[132] The majority (*** percent) of importers' U.S. commercial

[123] *See, e.g.*, Petitioners' Prehearing Brief at 24-25.

[124] CR/PR at Table II-7. Other purchasing factors rated as very important by at least 15 of 17 purchasers include: availability (17); delivery time (16); product consistency (15); product formability (16); and quality meets industry standards (16). *Id*.

[125] CR/PR at Table II-12.

[126] CR/PR at II-13.

[127] CR/PR at Table II-6.

[128] In addition, as discussed in section V.D., we find OCTAL's arguments that purchasers purchased subject imports from Oman mainly for non-price reasons to be unpersuasive.

[129] CR/PR at V-1.

[130] CR/PR at Table G-2.

[131] CR/PR at Table G-1.

[132] CR/PR at Table V-2. In addition to spot sales, 32.4 percent of domestic producers' U.S. commercial shipments were sold pursuant to long-term contracts, 6.5 percent were sold using annual contracts, and 3.9 percent were sold using short-term contracts. *Id.*

shipments in 2019 were pursuant to long-term contracts.[133] OCTAL reported selling subject imports from Oman pursuant to long-term contracts that contain market-index pricing formulas, and that were concluded before the POI.[134]

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."[135]

Cumulated subject imports had a sizable and increasing presence in the U.S. market throughout the POI. Cumulated subject imports' volume in the merchant market increased overall by *** percent from 2017 to 2019, first decreasing from *** pounds in 2017 to *** pounds in 2018 and then increasing to *** pounds in 2019.[136] The decline in cumulated subject imports in 2018 was coincident with OCTAL SAOC's temporary suspension of production and export operations that year, discussed in section V.B.3. above.

As previously discussed, cumulated subject imports' share of the U.S. merchant market rose from *** percent in 2017 to *** percent in 2019 – an increase of *** percentage points – and in 2019 cumulated subject imports had a majority share of the merchant market.[137] This increase in market share came at the direct expense of the domestic industry, which experienced a *** percentage point decrease in market share in the merchant market from 2017 to 2019.[138]

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[133] CR/PR at Table V-2. In addition to long-term contracts, *** percent of importers' U.S. commercial shipments were spot sales, *** percent were sold using annual contracts, and *** percent were sold using short-term contracts. *Id*.

[134] OCTAL's Prehearing Brief at 29-31 & 46-48; CR/PR at V-3.

[135] 19 U.S.C. § 1677(7)(C)(i).

[136] CR/PR at Table C-4.

[137] CR/PR at Table C-4. Cumulated subject imports' share of apparent U.S. consumption in the total market rose from *** percent in 2017 to *** percent in 2019, an increase of *** percentage points. *See* CR/PR at Table C-3.

[138] CR/PR at Table C-4. In the total market, the domestic industry experienced a *** percentage point decrease in market share market from 2017 to 2019. *See* CR/PR at Table C-3.

In light of the above, we find that the volume of cumulated subject imports,[139] and the increase in that volume, are significant in both absolute terms and relative to consumption.[140]

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

(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.[141]

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[139] OCTAL argues that the Commission should give reduced weight to the volume of cumulated subject imports shipped during the POI pursuant to long-term contracts concluded before the POI, on the theory that such imports are of limited relevance to the Commission's analysis of present material injury. *See* OCTAL's Prehearing Brief at 29-31. OCTAL's argument is unavailing. That subject imports were shipped during the POI pursuant to long-term contracts previously signed does not mean that such imports did not cause present material injury. *See Certain Orange Juice from Brazil*, Inv. No. 731-TA-1089, USITC Pub. 3838 (Final) (Mar. 2006) at 23. We observe that, in the volume analysis of the determination OCTAL cites to support its argument, the Commission did not ignore subject imports shipped pursuant to long-term contracts. *See Low Enriched Uranium from France, Germany, the Netherlands, and the United Kingdom*, Inv. Nos. 701-TA-409-412 and 731-TA-909, USITC Pub. 3486 (Final) (Feb. 2002) at 12. Moreover, we note that only *** out of OCTAL's *** identified purchasers have long-term contracts with the company. *See* Exhibit 2 of Attachment A of OCTAL's Posthearing Brief. Finally, we note that giving reduced weight to shipments or sales completed during the POI but made under previously concluded long-term contracts could undermine the availability of relief under the statute. The effects of such contracts may not be apparent in the market until shipments or sales are actually completed. Ignoring or reducing the weight of imports that are shipped or sold under long-term contracts would limit domestic producers' ability to seek relief in situations where subject importers or producers happen to employ long-term contracts as their way of making sales in the U.S. market, even though the shipments or sales pursuant to these contracts occurred during the pertinent POI.

[140] Because cumulated subject import volume and market penetration increased between 2017 and 2019 – both years in which OCTAL SAOC engaged in normal operations – OCTAL's argument that the Commission should give reduced weight to the increase in cumulated subject imports between 2018 and 2019, *see* OCTAL's Prehearing Brief at 9-12, is of limited pertinence to our finding. We recognized above circumstances related to OCTAL's production, which OCTAL emphasizes were coincident with the lower subject import volume that year. Nevertheless, cumulated subject import volume in 2019 was *** greater than in 2017. *See* Revision to Report at Table IV-2.

We address OCTAL's arguments as to the lack of effects of cumulated subject import volumes in the price effects and impact sections below.

[141] 19 U.S.C. § 1677(7)(C)(ii).

As discussed in section V.B.4., we find a high degree of substitutability between the domestic like product and cumulated subject imports, and that price is an important factor in purchasing decisions for PET sheet.

The Commission collected quarterly pricing data from U.S. producers and importers for four PET sheet products shipped to unrelated U.S. customers during the POI.[142] Eight U.S. producers (excluding the related party ***) and five importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[143] The pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of PET sheet, *** percent of U.S. importers' shipments of subject imports from Korea, and *** percent of U.S. importers' U.S. shipments of subject imports from Oman in 2019.[144]

These data indicate that cumulated subject imports pervasively undersold the domestic like product throughout the POI by significant margins. Specifically, between 2017 and 2019, cumulated subject imports undersold the domestic like product in 74 of 76 possible quarterly comparisons, with *** pounds of subject imports reported in those quarters, and with an average underselling margin of 16.6 percent.[145] Cumulated subject imports oversold the domestic like product in the remaining two quarterly comparisons, with *** pounds of subject imports reported in those quarters, and with an average overselling margin of ***

The record further indicates that underselling by cumulated subject imports caused the domestic industry to lose sales. Of the ten purchasers who responded that they purchased subject imports instead of the domestic like product, five reported price as a primary reason for

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[142] CR/PR at V-4 & E-3. The four pricing products are:

Product 1. PET sheet, single layer, thickness of 0.012"-0.030", clear/transparent, 20-53" roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 2. PET sheet, single layer, thickness of 0.031"-0.045", clear/transparent, 20-53" roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 3. PET sheet, single layer, thickness of 0.012"-0.030", black, 20-53" roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 4. PET sheet, three-layer coextruded, thickness of 0.012"-0.030", clear/transparent, 20-53" roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

[143] CR/PR at V-5 & E-3.

[144] CR/PR at E-3.

[145] CR/PR Table E-6.

[146] CR/PR at Table E-6.

their purchase of subject imports instead of the domestic like product.[147] Likewise, contemporaneous documentation of price negotiations indicate that domestic producers lost sales to subject imports because of their lower prices.[148] Consistent with lost sales due to underselling by subject imports, there was a market share shift from the domestic industry to cumulated subject imports over the POI, which was particularly pronounced in the merchant market.[149]

We are unpersuaded by OCTAL's argument that purchases of PET sheet from Oman increased mainly for non-price reasons.[150] We acknowledge that the record contains statements from certain firms that they purchased subject imports from Oman for non-price reasons, such as quality or carbon footprint.[151] However, we find that these statements do not outweigh the aggregate data from market participants as a whole, which, as discussed above, reflects that price is an important factor in purchasing decisions for PET sheet and that most purchasers usually purchase the lowest-priced product.[152] Further, OCTAL itself testified at the

[147] CR/PR at Table V-10. We recognize that two of the five firms reporting price as a primary reason for purchasing subject imports instead of the domestic like product, ***, only submitted purchaser questionnaires in the preliminary phase of these investigations (with a POI of 2016-2018). *See* Note to CR/PR Table V-9. However, neither of these firms reported purchasing any subject imports in 2016. *See* *** Preliminary Phase Purchaser Questionnaire Responses at 1. Thus, all purchases by these five firms for which price was a primary reason for selecting subject imports over the domestic like product occurred during the time covered by the final phase POI. The quantity of such purchases was *** pounds, *** percent of total cumulated subject imports over the POI. *Derived from* CR/PR Tables V-11 & C-4.

[148] *See*, *e.g.*, Attachment 2 to Exhibit 4 of Petitioners' Posthearing Brief (2018 email correspondence in which ***); Attachment 3 to Exhibit 4 of Petitioners' Posthearing Brief (2017 email correspondence in which ***.). *See also* Attachment 5 to Exhibit 5 of Petitioners' Posthearing Brief (2017 email correspondence in which ***); Attachment 1 to Exhibit 4 of Petitioners' Prehearing Brief (2017 email correspondence in which ***).

[149] As previously discussed, from 2017 to 2019 cumulated subject imports gained *** percentage points of market share at the domestic industry's expense in the merchant market and *** percentage points of market share at the domestic Industry's expense in the total market. *See* CR/PR at Table C-3-4.

[150] OCTAL's Posthearing Brief at 4-5 ("The only possible adverse effect of the underselling is market share. But…the shifts in market share are…demonstrably unrelated to price. Such shifts in market share cannot be linked to the underselling..."); OCTAL's Prehearing Brief at 18-27 & 39-46; OCTAL's Final Comments, EDIS Doc. 717356 at 7-8.

[151] *See*, *e.g.*, *** purchaser questionnaire response at III-8; sworn declaration accompanying *** purchaser questionnaire response; *** purchaser questionnaire response at III-8 & V-1; sworn declaration accompanying *** purchaser questionnaire response; *** purchaser questionnaire response at III-29(c).

[152] CR/PR at II-11 & Table II-7.

hearing as to the importance of price in purchasing decisions for PET sheet from Oman,[153] and the questionnaire responses of the same firms indicating that they purchased subject imports from Oman for non-price reasons reflect that they consider price as very important in their purchasing decisions for PET sheet.[154] Moreover, all five firms reporting price as a primary reason for their purchase of subject imports rather

[153] Hearing transcript at 172-73 (Barenberg) ("…if we were to go out and raise price…we would absolutely lose business without question.") & 213 (Porter) ("neither OCTAL, nor we, are saying that every single customer who buys D-PET, the sole and only reason is because of the quality. Sure, there are some customers who like…that OCTAL has this cost advantage.").

[154] *See, e.g.*, *** purchaser questionnaire response at III-24; *** purchaser questionnaire response at III-24; *** purchaser questionnaire response at III-24; *** purchaser questionnaire response at III-24 (in each case rating price as a very important purchasing factor).

We are unpersuaded by OCTAL's argument that its customers purchase subject imports from Oman instead of the domestic like product because OCTAL's D-PET achieves a lower carbon footprint, due to its production process which consumes less energy. *See* OCTAL's Prehearing Brief at 22-25; Hearing transcript at 138-144 (Barenberg). Although five of nine responding purchasers indicated that U.S.-produced PET sheet was inferior to imported product from Oman with respect to carbon footprint, we observe that the remaining four purchasers respond that U.S.-produced PET sheet was either superior or comparable to imported product from Oman for this factor. Moreover, the vast majority of purchasers reported that U.S.-produced PET sheet was either superior or comparable to PET sheet from Oman with respect to "PET is R-PET," meaning the PET sheet is made with recycled content. CR/PR at Table II-9. Further, while perceived carbon footprint advantages of imported product from Oman may be relevant for some purchasers, the weight of the record evidence does not support the conclusion that carbon footprint, rather than underselling, is the primary driver of purchasing decisions. *See* CR/PR at Table II-7 (only three of 17 responding purchasers ranked carbon footprint as a very important purchasing factor while 16 of 17 responding purchasers ranked price as very important); *see also* Purchasers' Questionnaire Responses at III-23 & CR/PR at Table II-12 (carbon footprint not among the most frequently cited top three purchasing factors, whereas price is the second most frequently cited top three purchasing factor); *cf.* Petitioners' Posthearing Brief at Exhibit 2, para. 17 (Debode declaration) ("When {recycled} content costs more, even if the customer requested it, our experience is that we get a 'never mind' on making it due to price."). In addition, while OCTAL reported that the reduced carbon footprint associated with D-PET is important to its customers and their interest in sustainability, their customers reported that recycled content is as well. CR/PR at II-9; Hearing transcript at 151 (Orkisz), 209-210; (McGuire), 201-211 (Orkisz). Indeed, to the extent that PET sheet purchasing decisions are motivated by sustainability concerns, record evidence indicates that the focus of these concerns is on the recycled content of PET sheet, rather than the carbon footprint of the production process. *See*, *e.g.*, Exhibit 1 to Petitioners' Posthearing Brief at 45-46; Exhibit 17 to Petitioners' Posthearing Brief (Walmart's PET Packaging Sustainability Goals); Exhibit 18 to Petitioners' Posthearing Brief (Target's PET Packaging Sustainability Goals); & Exhibit 19 to Petitioners' Posthearing Brief (Albertsons' Supplier Sustainability Guidelines and Expectations).

than the domestic like product purchased subject imports exclusively from Oman, which, as explained above, pervasively undersold the domestic like product.[155]

Because the record as a whole indicates that price is an important factor in purchasing decisions for PET sheet, including PET sheet from Oman, and that the domestic industry lost sales due to price to lower-priced subject imports, we find that this underselling caused the shift in market share from the domestic like product to cumulated subject imports over the POI. We thus find the underselling by cumulated subject imports to be significant.[156]

We have also considered price trends for the domestic like product and subject imports. Prices for all four domestically produced pricing products were higher in the fourth quarter of 2019 than in the first quarter of 2017.[157] Prices for three of the four pricing products from Oman were likewise higher in the fourth quarter of 2019 than in the first quarter of 2017.[158] For the two pricing products from Korea for which comparisons were possible, one was priced higher in the fourth quarter of 2019 than in the first quarter of 2017 and one was priced lower.[159] In light of these trends, we do not find that cumulated subject imports depressed prices for the domestic like product to a significant degree.

Nor do we find that cumulated subject imports prevented price increases which otherwise would have occurred to a significant degree. The record does not indicate that the domestic industry incurred a cost-price squeeze. In the merchant market, the domestic industry's ratio of COGS to net sales declined from *** percent in 2017 to *** percent in

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[155] *See* *** preliminary phase purchaser questionnaire at 1; *** preliminary phase purchaser questionnaire at 1, *** final phase purchaser questionnaire at II-1(a); *** final phase purchaser questionnaire at II-1(a); and *** final phase purchaser questionnaire at II-1(a).

[156] We are not persuaded by OCTAL's argument that underselling by subject imports from Oman is not significant because prices for these imports were set by market-index pricing formulas established by contract rather than transaction-specific decisions from OCTAL. *See* OCTAL's Prehearing Brief at 46-48; Attachment A to OCTAL's Posthearing Brief at 26-27. The underselling provision of the statute does not contain an intent requirement. We likewise are not persuaded by OCTAL's argument that its underselling is not significant because its supply contracts are long-term and were concluded prior to the POI. *See* Attachment A to OCTAL's Posthearing Brief at 26-27. The fact that OCTAL may have contracted in advance for a price does not obviate the fact that underselling occurred or that it had adverse effects on the domestic industry during the POI. *See Certain Orange Juice from Brazil*, USITC Pub. 3838 (Final) (Mar. 2006) at 23. Further, we also note that only *** out of OCTAL's *** identified purchasers have long-term contracts with the company. *See* Exhibit 2 to Attachment A of OCTAL's Posthearing Brief.

[157] CR/PR at Tables E-1-4.

[158] CR/PR at Tables E-1-4. The price of pricing product three from Oman was *** percent lower in the last quarter of 2019 than in the first quarter of 2017. *See* CR/PR at Table E-5.

[159] CR/PR at Tables E-1, E-4.

2019.[160] Further, the average unit value ("AUV") of the domestic industry's commercial sales increased by $*** over the POI, outstripping the $*** increase in unit COGS over the period.[161] Thus, the domestic industry's price increases were sufficient to cover its rising costs on a per unit basis in the merchant market over the course of the POI.

In conclusion, we find that subject imports significantly undersold the domestic like product, gaining sales and market share at the domestic industry's expense due to their lower prices. We therefore find that cumulated subject imports had significant adverse price effects on the domestic industry.

E. Impact of the Subject Imports[162]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[163] 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

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[160] CR/PR at Table C-4. In the total market, the industry's COGS to net sales ratio increased overall from 2017 to 2019, from *** percent to *** percent. *See* CR/PR at Table C-3. However, this overall increase of *** percentage points does not evince that the domestic industry faced a significant cost-price squeeze in light of the merchant market data in the record.

[161] CR/PR at Table C-4. The industry's price increases also exceeded the increase in costs on a percentage basis, with unit COGS increasing by *** percent from 2017 to 2019 while the industry's net commercial sales AUV increased by *** percent. *Id*.

[162] The statute instructs the Commission to consider the "magnitude of the margin of dumping" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determinations, Commerce found dumping margins ranging from 7.19 to 52.01 percent for subject imports from Korea, and a dumping margin of 4.74 percent for subject imports from Oman. *See Polyethylene Terephthalate Sheet from the Republic of Korea: Final Determination of Sales at Less Than Fair Value,* 85 Fed. Reg. 44276, 44277 (Jul. 22, 2020); *Polyethylene Terephthalate Sheet from the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*, 85 Fed. Reg. 44278, 44279 (Jul. 22, 2020). We take into account in our analysis the fact that Commerce has made final findings that all subject producers in Korea and Oman are selling subject imports in the United States at LTFV. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant underselling, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

[163] 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.").

service debts, research and development, and factors affecting domestic prices. 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."[164]

Measures of the domestic industry's output were mixed over the POI. Its capacity rose by *** percent from 2017 to 2019, increasing from *** pounds in 2017 to *** pounds in 2018 and *** pounds in 2019.[165] Its production increased by *** percent, rising from *** pounds in 2017 to *** pounds in 2018 and then declining to *** pounds 2019.[166] Its capacity utilization decreased by *** percentage points, from *** percent in 2017 to *** percent in 2018 and *** percent in 2019.[167]

The domestic industry's commercial U.S. shipments decreased overall by *** percent from 2017 to 2019, increasing from *** pounds in 2017 to *** pounds in 2018, before declining to *** pounds in 2019.[168] The value of these shipments decreased overall by *** percent, increasing from $*** in 2017 to $*** in 2018, before declining to $*** in 2019.[169] Its end-of-period inventories declined overall by *** percent, decreasing from *** pounds in 2017 to *** pounds in 2018 and then increasing to *** pounds in 2019.[170] Its share of apparent U.S. consumption in the merchant market, as discussed above, declined overall by *** percentage points, first increasing from *** percent in 2017 to *** percent in 2018, before decreasing to *** percent in 2019.[171]

The domestic industry's employment indicators increased over the POI. Employment rose by *** percent, increasing from *** production-related workers ("PRWs") in 2017 to ***

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[164] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[165] CR/PR at Table C-3.

[166] CR/PR at Table C-3.

[167] CR/PR at Table C-3.

[168] CR/PR at Table C-4. Its U.S. shipments in the total market increased by *** percent between 2017 and 2019, increasing from *** pounds in 2017 to *** pounds in 2018 and declining to *** pounds in 2019. *See* CR/PR at Table C-3.

The domestic industry's internal consumption was *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019; its transfers to related firms were *** pounds in 2017, *** pounds in 2018, and *** pounds in 2019. *Derived from* CR/PR at Table III-6 & *** Producer Questionnaire Response.

[169] CR/PR at Table C-4. In the total market, the value of the domestic industry's U.S. shipments rose overall by *** percent between 2017 and 2019, increasing from $*** to $*** in 2018 and then decreasing to $*** in 2019. *See* CR/PR at Table C-3

[170] CR/PR at Table C-3.

[171] CR/PR at Table C-4. The domestic industry's share of apparent U.S. consumption in the total market declined overall by *** percentage points between 2017 and 2019, increasing from *** percent in 2017 to *** percent in 2018, before decreasing to *** percent in 2019. *See* CR/PR at Table C-3.

PRWs in 2018 and *** PRWs in 2019.[172] Hours worked increased by *** percent, from *** hours in 2017 to *** hours in 2018 and *** hours in 2019.[173] Wages paid rose by *** percent, increasing from $*** in 2017 to $*** in 2018 and $*** in 2019.[174] Productivity rose overall by *** percent, increasing from *** pounds per hour in 2017 to *** pounds per hour in 2018, before decreasing to *** pounds per hour in 2019.[175]

The domestic industry's financial performance in the merchant market improved by most measures other than sales revenues over the POI. The domestic industry's revenues from commercial sales decreased overall by *** percent, increasing from $*** in 2017 to $*** in 2018 and then decreasing to $*** in 2019.[176] Its gross profits in the merchant market rose overall by *** percent, decreasing from $*** in 2017 to $*** in 2018 and then increasing to $*** in 2019.[177] Its operating income in the merchant market increased overall by *** percent, decreasing from $*** in 2017 to $*** in 2018 and then increasing to $*** in 2019.[178] Its operating margin in the merchant market decreased from *** percent in 2017 to *** percent in 2018, and then rose to *** percent in 2019.[179] Its net income in the merchant increased overall by *** percent, decreasing from $*** in 2017 to $*** in 2018 and then increasing to $*** in 2019.[180] Its capital expenditures fluctuated but rose overall: they were $*** in 2017, $*** in

[172] CR/PR at Table C-3.

[173] CR/PR at Table C-3.

[174] CR/PR at Table C-3.

[175] CR/PR at Table C-3.

[176] CR/PR at Table C-4. In the total market, the domestic industry's revenues from net sales rose overall by *** percent between 2017 and 2019, increasing from $*** in 2017 to $*** in 2018, before decreasing to $*** in 2019. *See* CR/PR at Table C-3.

[177] CR/PR at Table C-4. In the total market, the domestic industry's gross profits fell overall by *** percent between 2017 and 2019, decreasing from $*** in 2017 to $*** in 2018, and then increasing to $*** in 2019. *See* CR/PR at Table C-3.

[178] CR/PR at Table C-4. In the total market, the domestic industry's operating income fell overall by *** percent between 2017 and 2019, decreasing from $*** in 2017 to $*** in 2018, and then increasing to $*** in 2019. *See* CR/PR at Table C-3.

The operating income attributable to the domestic industry's captive production operations was $*** in 2017, $*** in 2018, and $*** in 2019. *Derived from* CR/PR Tables G-1 & G-2.

[179] CR/PR at Table C-4. In the total market, the domestic industry's operating margin decreased from *** percent in 2017 to *** percent in 2018, before increasing to *** percent in 2019, a level higher than that of 2017. *See* CR/PR at Table C-3.

[180] CR/PR at Table C-4. In the total market, the domestic industry's net income fell overall by *** percent between 2017 and 2019, decreasing from $*** in 2017 to $*** in 2018, and then increasing to $*** in 2019. *See* CR/PR at Table C-3.

2018, and $*** in 2018.[181] The domestic industry incurred research and development expenses of $*** in 2017, $*** in 2018, and $*** in 2019.[182]

Notwithstanding some improvements in the industry's performance, which occurred as apparent U.S. consumption increased over the POI, cumulated subject imports had adverse effects on the domestic industry. Cumulated subject imports, as discussed above, captured sales and took market share from the domestic industry during the POI due to their lower prices. As a result, the domestic industry's production, shipments, and revenues were lower than they would have been otherwise.[183] Notably, the quantity and value of the domestic industry's commercial U.S. shipments, and the revenues from its commercial sales, decreased over the POI, despite the *** percent increase in apparent U.S. consumption in the merchant market over this period. For these reasons, we find that cumulated subject imports had a significant impact on the domestic industry.[184]

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[181] CR/PR at Table C-3.

[182] CR/PR at Table C-3.

[183] OCTAL appears to dispute this, indicating that if low-priced subject imports from Oman had not been in the market, purchasers would have turned instead to substitute products such as polystyrene rather than the domestic like product. *See* Attachment A to OCTAL's Posthearing Brief at 2. The record does not support this proposition. Most market participants, including 13 of 17 purchasers, reported that there were no substitutes for PET sheet. *See* CR/PR at II-10. Consequently, even assuming *arguendo* that subject imports from Oman were not available during the POI, most purchasers would have obtained PET sheet from other sources, including domestic producers, rather than purchasing alternative products. It is noteworthy in this respect that in 2018, when subject imports from Oman were not available for a portion of the year, the domestic industry captured market share from the cumulated subject imports. *See* CR/PR at Table C-4. Indeed, each of the four purchasers that OCTAL asserts purchased subject imports from Oman for non-price reasons increased their purchases of domestically produced PET sheet during 2018, the year OCTAL SAOC had production difficulties. *See* *** Purchaser Questionnaire, EDIS Doc. 709020; *** Purchaser Questionnaire, EDIS Doc. 70024; *** Purchasers Questionnaire, EDIS Doc. 714058; *** Purchaser Questionnaire, EDIS Doc. 712754, responses to question II-1.a.

[184] We reject OCTAL's argument that, in effect, the Commission must find a linkage between material injury and the act of dumping, and that, here, such linkage is lacking because Commerce calculated a 4.74 percent dumping margin for OCTAL SAOC. *See* OCTAL's Prehearing Brief at 53-55; OCTAL's Posthearing Brief at 10. This is contrary to settled law. The statute does not task the Commission with determining whether the domestic industry is materially injured by reason of *dumping*. *See Certain Lightweight Thermal Paper from China and Germany*, Inv. Nos. 701-TA-451, 731-TA- 1126-1127 (Remand), USITC Pub. 4344 (Sept. 2011) at 7 (addressing this issue in the threat of material injury context), *aff'd sub nom*. *Papierfabrik August Koehler AG v. United States*, 675 F. Supp. 1172 (Ct. Int'l Trade 2012), *aff'd without opinion*, 493 F. App'x 104 (Fed. Cir. 2013). Rather, it directs the Commission to determine whether the domestic industry is materially injured by reason of *dumped imports*. *See* 19 U.S.C. § 1673d(b). By the same token, because the statute directs the Commission to consider whether "there has been significant price underselling by the imported merchandise…", 19 (Continued...)

While OCTAL argues that subject imports did not injure the domestic industry because it was profitable over the POI, and profitability improved in the merchant market, this does not provide a basis to make a negative determination. Under 19 U.S.C. § 1677(7)(J), "{t}he 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 the performance of that industry has recently improved." We also note that while some of the industrywide data cited above suggest positive performance, other data in the record show the opposite. In particular, of the 13 firms included in the domestic industry that reported financial results on merchant market operations in 2019, nine reported operating losses.[185] Further, the record indicates that one producer, ***, had far better operating performance than any other domestic producer each year of the POI.[186] The record suggests that this producer makes a premium, niche product that may not compete directly with subject imports.[187] This may help explain its *** financial performance during the POI, which was distinct from that of most of the other domestic producers; we observe that the other producers overall had lower operating margins in 2019 than in 2017.[188] Moreover, 14 of 22 domestic producers reported that the subject imports had negative effects on investment, and 13 of 22 reported they had negative effects on growth and development, further supporting a conclusion that the domestic industry as a whole would have performed materially better in the absence of the dumped imports.[189]

We are unpersuaded by OCTAL's argument to the effect that, because it serves a different segment of the U.S. market than U.S. producers – *i.e.*, large purchasers – the impact of subject import competition on the domestic industry is attenuated.[190] The record reflects that

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(…Continued)
U.S.C. §1677(7)(C)(ii)(I), and does not further direct the Commission to find whether the underselling was caused by dumping or subsidization, OCTAL's arguments comparing the dumping margins and the margins of underselling have no basis in the statute.

[185] CR/PR at Table F-3.

[186] CR/PR at Table F-3 (showing *** 2019 operating income as $*** and its operating income to net sales ratio as *** percent; the next highest operating income for a domestic producer supplying the merchant market was $*** and the next highest operating income ratio for such a producer was *** percent).

[187] CR/PR at III-14 n.6 & VI-2 n.4; *see also* *** Producer Questionnaire Response, EDIS Doc. 710359 at 32 (indicating that the firm did not sell any of the four pricing products).

[188] CR/PR at Table F-3.

[189] CR/PR at Table VI-7.

[190] OCTAL's Prehearing Brief at 19-20 & 27-28.

OCTAL serves a ***, which purchase in ***.[191] We are likewise unpersuaded by OCTAL's argument that, because many of its purchasers are long-term customers, the impact of subject import competition on the domestic industry is attenuated.[192] Only *** out of OCTAL's *** identified purchasers have long-term contracts with the company, which indicates subject imports from Oman and the domestic industry are in head-to-head competition for *** of customers.[193]

We have also considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject merchandise. Apparent U.S. consumption increased overall during the POI, and nonsubject imports, which were generally priced higher than the domestic like product,[194] maintained a relatively small presence in the U.S. market that increased by far less over the POI than did cumulated subject imports.[195] Therefore, neither demand trends nor nonsubject imports explain the magnitude of the domestic industry's sales and market share losses over the POI.

We are unpersuaded by OCTAL's argument that the domestic industry's loss of market share in the merchant market over the POI is not due to subject imports, but rather reflects a shift in the industry from supplying the merchant market to internal consumption.[196] If a shift of U.S. producers' business operations from the merchant market to captive production over the POI were responsible for their loss of market share in the merchant market, then one would not expect to see U.S. producers' share of the total market, which reflects both these segments, decrease. However, U.S. producers' share of the total market decreased by *** percentage points over the POI.[197] Moreover, the domestic industry's shipment mix, *i.e.*, the percentage of its total U.S. shipments accounted for by commercial shipments and the percentage accounted

[191] Exhibit 2 to Attachment A of OCTAL's Posthearing Brief.

[192] OCTAL's Prehearing Brief at 10; OCTAL's Posthearing Brief at 1.

[193] Exhibit 2 to Attachment A of OCTAL's Posthearing Brief.

[194] CR/PR at Table D-2 (providing overselling/underselling information on pricing product 1 from Canada, the leading nonsubject import source, vis-à-vis pricing product 1 from the United States). No importer reported Canadian price data for products 2-4. *See* CR/PR at D-3.

[195] As discussed, nonsubject imports' share of apparent U.S. consumption in the merchant market increased from *** percent in 2017 to *** percent in 2018, and then decreased to *** percent in 2019, for an overall increase of *** percentage points between 2017 and 2019. *See* CR/PR at Table C-4. Nonsubject imports' share of apparent U.S. consumption in the total market increased from *** percent in 2017 to *** percent in 2018 and *** percent in 2019, for an overall increase of *** percentage points between 2017 and 2019. *See* CR/PR at Table C-3.

[196] OCTAL's Prehearing Brief at 18; OCTAL's Posthearing Brief at 2-3 & 11-12.

[197] CR/PR at Table C-4.

for by non-commercial shipments, did not shift dramatically over the POI.[198] Finally, we reject OCTAL's argument that "mixed" producers – those that both internally consume their PET sheet production and sell on the merchant market – merely made business decisions to increasingly emphasize the former over the latter and that they sell in the merchant market only when their excess capacity permits.[199] Most of the mixed producers had substantial excess capacity in 2019, and all but *** saw a decline in production over the POI.[200]

VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of cumulated subject imports of PET sheet from Korea and Oman that are sold in the United States at LTFV.

[198] *Derived from* CR/PR Table III-6 & *** Producer Questionnaire Response. The percentage of the domestic industry's total U.S. shipments accounted for by commercial shipments was *** percent in 2017, *** percent in 2018, and *** percent in 2019. *Id.* The percentage of the domestic industry's total U.S. shipments accounted for by internal consumption and transfers to related firms was *** percent in 2017, *** percent in 2018, and *** percent in 2019. *Id.*

[199] OCTAL's Prehearing Brief at 13-18.

[200] CR/PR at Table III-4.

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 Advanced Extrusion, Inc., Rogers, Minnesota; Ex-Tech Plastics, Inc., Richmond, Illinois; and Multi-Plastics Extrusions, Inc., Hazleton, Pennsylvania, on July 9, 2019, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of polyethylene terephthalate sheet ("PET sheet")[1] from Korea, Mexico,[2] and Oman. The following tabulation provides information relating to the background of these investigations.[3] [4]

[1] See the section entitled "The subject merchandise" in Part I of this report for a complete description of the merchandise subject in this proceeding.

[2] During the preliminary phase of these investigations, the Commission found that imports of PET sheet from Mexico that are allegedly sold in the United States at LTFV are negligible and accordingly terminated the investigation with respect to subject imports of PET sheet from Mexico. 84 FR 49116, September 18, 2019.

[3] Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission's website (www.usitc.gov).

[4] Appendix B presents the witnesses participating in the Commission's hearing.

Effective date	Action
July 9, 2019	Petitions filed with Commerce and the Commission; institution of Commission investigations (84 FR 33785, July 15, 2019)
August 19, 2019	Commerce's notice of initiation (84 FR 44854, August 27, 2019)[5]
September 13, 2019	Commission's preliminary determinations (84 FR 49116, September 18, 2019)
March 3, 2020	Commerce's preliminary determination and postponement of final determination for PET sheet from Korea (85 FR 12500, March 3, 2020) and Oman (85 FR 12513, March 3, 2020)
March 3, 2020	Scheduling of final phase of Commission investigations (85 FR 15796, March 19, 2020)
July 14, 2020	Commission's hearing
July 22, 2020	Commerce's final antidumping duty determinations for PET sheet from Korea (85 FR 44276) and Oman (85 FR 44278)
August 19, 2020	Commission's vote
September 3, 2020	Commission's views

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.*

[5] Commerce extended the deadline for its initiation determinations, from July 29, 2019, to August 19, 2019, to gather and analyze additional information regarding industry support. On August 19, 2019, Commerce determined there was sufficient domestic support for the petition, and initiated the antidumping duty investigations.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--[6]

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

[6] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.
[7] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Organization of report

Part I of this report presents information on the subject merchandise, 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

PET sheet is generally used to manufacture a wide variety of rigid (as opposed to flexible) food, beverage, and retail packaging. The leading U.S. producers of PET sheet are ***, while the leading producers of PET sheet outside the United States include *** of Korea and OCTAL SAOC FZC ("OCTAL SAOC") of Oman. The leading U.S. importer of PET sheet from Korea is ***[8] and the leading U.S. importer of PET sheet from Oman is OCTAL, Inc.[9] Leading importers of PET sheet from nonsubject countries (primarily Canada and Taiwan) include ***, ***, and ***. U.S. purchasers of PET sheet are thermoforming firms; lead purchasers include ***.

Apparent U.S. consumption of PET sheet totaled approximately *** pounds ($***) in 2019. Currently, 33 firms are known to produce PET sheet in the United States. U.S. producers' U.S. shipments of PET sheet totaled 1,249.9 million pounds ($1,104.7 million) in 2019, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from subject sources totaled *** pounds

[8] ***. *** importer questionnaire response, question I-5.

[9] OCTAL SAOC is the sole foreign producer of PET sheet from Oman. Conference Transcript, p. 93 (Barenberg). OCTAL Inc. is OCTAL SAOC's U.S. marketing organization, based in Plano, TX, and is the official importer of record for 100 percent of imports from Oman. Conference Transcript, p. 93 (Porter). OCTAL Extrusion is a U.S. producer of PET sheet, based in Cincinnati, Ohio. Conference Transcript, pp. 93-94 (Barenberg).

($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from nonsubject sources totaled 49.7 million pounds ($40.5 million) 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, tables C-1 to C-4. Except as noted, U.S. industry data are based on questionnaire responses of 25 firms that accounted for 88.9 percent of U.S. production of PET sheet during 2019. U.S. imports are based on proprietary Customs records using statistical reporting number 3920.62.0090 and 15 importer questionnaire responses that accounted for 82.6 percent of 2018 U.S. imports from Korea, *** percent of 2018 U.S. imports from Oman, 30.0 percent of 2018 U.S. imports from nonsubject countries, and 73.8 percent of total 2018 U.S. imports reported under HTS statistical reporting number 3920.62.0090.[10] [11]

Previous and related investigations

PET sheet has not been the subject of any prior or related countervailing or antidumping duty investigations in the United States.[12]

Nature and extent of sales at LTFV

Sales at LTFV

On March 3, 2020, Commerce published notices in the *Federal Register* of its Preliminary determination of sales at LTFV with respect to imports from Korea[13] and Oman.[14] On July 22, Commerce published notices in the Federal Register of its final determinations of sales at LTFV with respect to imports of PET sheet from Korea[15] and Oman.[16] Tables I-1 and I-2 present Commerce's dumping margins with respect to imports of PET sheet from Korea and Oman.

[10] This HTS statistical reporting number contains out of scope product.

[11] The year 2018 was used to calculate importer coverage because proprietary Customs data were not available for the full 2019 year.

[12] There have been three previous investigations on "PET sheet, film, and strip" that covered a distinct product with different manufacturing processes, physical characteristics, and end users.

[13] 85 FR 12500, March 3, 2020.

[14] 85 FR 12513, March 3, 2020.

[15] 85 FR 44276, July 22, 2020.

[16] 85 FR 44278, July 22, 2020.

Table I-1
PET sheet: Commerce's weighted-average LTFV margins with respect to imports from Korea

Exporter/Producer	Preliminary dumping margin (percent)	Final dumping margin (percent)
Jin Young Chemical Co., Ltd. (JYC) and Jinyoung Co. Ltd. (JYL) (collectively, the Jin Young Group)	8.02	7.19
Plastech Co., Ltd.	52.01	52.01
Chungdang Co.	52.01	52.01
K Stout Co	52.01	52.01
Kemicolor Corp	52.01	52.01
KP Tech Ltd.	52.01	52.01
Moojin Che	52.01	52.01
OKS Poly	52.01	52.01
Puyoung Industry Co	52.01	52.01
Samjin Plastic Co	52.01	52.01
Sangil Corp	52.01	52.01
SK Chemicals	52.01	52.01
Tae Kwang New Tech. Co., Ltd.	52.01	52.01
Unidesign Co	52.01	52.01
All others	8.02	7.19

Source: 85 FR 12500, March 3, 2020, and 85 FR 44276, July 22, 2020.

Table I-2
PET sheet: Commerce's weighted-average LTFV margins with respect to imports from Oman

Exporter/Producer	Preliminary dumping margin (percent)	Final dumping margin (percent)
OCTAL SAOC – FZC (OCTAL)	2.78	4.74
All others	2.78	4.74

Source: 85 FR 12513, March 3, 2020, and 85 FR 44278, July 22, 2020.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[17]

> *Raw, pretreated, or primed polyethylene terephthalate sheet, whether extruded or coextruded, in nominal thicknesses of equal to or greater than 7 mil (0.007 inches or 177.8 mm) and not exceeding 45 mil (0.045 inches or 1143 mm) (PET sheet). The scope includes all PET sheet whether made from prime (virgin) inputs or recycled inputs, as well as any blends thereof. The scope includes all PET sheet meeting the above specifications regardless of width, color, surface treatment, coating, lamination, or other surface finish.*

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under statistical reporting number 3920.62.0090 of the Harmonized Tariff Schedule of the United States ("HTS"), a residual or "basket" provision for PET sheet, PET foil, PET strip, and PET film (other than metalized film). The 2020 general rate of duty is 4.2 percent *ad valorem*.[18] [19] Under free trade agreements with the United States, originating goods of Mexico and of Oman are eligible for a special duty rate of free, while originating goods of Korea may be accorded a special rate of duty of 0.4 percent *ad valorem*—all of these upon proper importer claim. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

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[17] 85 FR 44276 and 85 FR 44278, July 22, 2020.

[18] Harmonized Tariff Schedule of the United States, 2020, Revision 15, USITC Publication 5092, July 2020.

[19] There are currently no Miscellaneous Tariff Bill provisions for PET sheet for the temporary period expiring December 31, 2020 under the American Manufacturing Competitiveness Act of 2016 (Pub. L. No. 114-159, § 3(a), 130 Stat. 397 (2016)), granting a reduced or suspended duty. In 2019, one petition was submitted under HTS 3920.62.00 (petition no. 1903526) for capacitor-grade biaxially oriented polyester film, an out-of-scope product. It was preliminarily recommended for inclusion into the miscellaneous tariff bill for duty suspension or reduction by the Commission. *American Manufacturing Competitiveness Act: Preliminary Report*, USITC Publication 5067, June 2020, App. A: All Petitions, p. 126; App. C: Category II Petitions, pp. 36, 1548.
https://www.usitc.gov/trade_tariffs/mtb_program_information/reports?items_per_page=All.

Section 301 tariff treatment

Section 301 of the Trade Act of 1974, as amended,[20] authorizes the Office of the U.S. Trade Representative ("USTR"), at the discretion of the President, to take appropriate action to respond to a country's unfair trade practices. Products of China classified under in-scope HTS subheadings 3920.62.00 were included in USTR's 2nd enumeration ("Tranche 2, List 2") that became subject to the additional 25-percent *ad valorem* duties on or after August 23, 2018.[21] See also U.S. note 20(d) to subchapter III of HTS chapter 99.[22]

The product

Description and applications

PET sheet is formed from PET resin, which is often sold in the form of pellets or chips. The primary end use is a wide variety of food, beverage and retail packaging. PET sheet is used in the manufacture of products such as food trays and containers (e.g., cake and cookie containers, one-time use school and hospital trays), carry-out containers, fruit and vegetable clamshell containers and trays, drinking cups, medical trays, paint tray liners, consumer packaging, and packaging for electro-static sensitive devices (such as integrated computer circuits).[23] [24] PET sheet is also used to produce protective medical face shields needed in the COVID-19 pandemic.[25]

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[20] 19 U.S.C. § 2411.

[21] 83 FR 40823, pp. 40823-40838. The USTR has granted exclusion from Section 301 duties under 9903.88.02 for HTS subheading 3920.62 for two products: 1) films coated on one or both sides with polyvinylidene chloride (PVdC) or polyvinyl alcohol (PVOH), whether or not having a primer layer between the base and coating; any of the foregoing having a total thickness greater than 0.01 mm but not greater than 0.03 mm (described in statistical reporting number 3920.62.0090); and 2) thermoformable PET sheets, with a thickness of 0.35 mm or more but not exceeding 1.7 mm, to which PET glitter flakes are permanently fastened, in rolls not less than 250 mm in width and not more than 1,092 mm in length (described in statistical reporting number 3920.62.0090). HTSUS (2020), Revision 15, USITC Publication 5092, June 2020, Ch 99, Subchapter III, pp. 105, 106.

[22] HTSUS (2020), Revision 15, USITC Publication 5092, July 2020, Ch 99, Subchapter III, pp. 21-22. As Section 301 duties are only applicable to China, they do not apply to any subject imports in these current reviews.

[23] Petition, p. 5; Hearing transcript, pp. 23-24 (Parsio), pp. 35-36 (Grayczyk), p. 63 (Debode), pp. 138-139 (McGuire).

Products manufactured from PET sheet have exceptional visual properties (such as clarity and gloss); provide barriers to gasses, odors, fat, grease, and oil; and are lightweight, impact- and tear-resistant, thermally stable, and recyclable. Certain additives or coatings may be used in the production of PET sheet to provide additional characteristics, such as color, anti-static, or anti-fog, as required for the end use application. A silicone coating is commonly added to ease downstream processing, including de-nesting of formed PET trays, cups, blisters, and other packaging.[26] The finished PET sheet is commonly sold in a roll that is typically banded with PET strapping.[27] Multiple rolls may be stacked for shipping. Both domestically-produced and imported PET sheet may be shipped inland by truck in 40,000-pound loads.[28]

The HTS statistical reporting number 3920.62.0090 includes "plates, sheets, film, foil and strip" of PET. The term "PET sheet," as used in the U.S. market and abroad, generally refers to flat-rolled PET material that is differentiated from other PET material by the thickness, or gauge.[29] The subject PET sheet is produced in thicknesses of equal to or greater than 7 mil (0.007 inches or 177.8 µm) and not exceeding 45 mil (0.045 inches or 1143 µm), and it is used to manufacture downstream products that are rigid or semi-rigid, not flexible. In the PET domestic industry, the term strip is not in common use.[30] The U.S. PET sheet producers, however, differentiate sheet from film. PET film is a thinner, flexible PET material that is used to produce video and photo film and flexible packaging films (convenience food pouches, flexible lids on yogurt and fruit cups and frozen meals, or roasting bags). PET film is produced by biaxially-orienting extruded PET through drawing it sequentially or simultaneously in the

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(…continued)

[24] For certain products such as packaging, other polymers can comprise the material, such as polystyrene (commonly known as Styrofoam) or polypropylene. Hearing transcript, pp. 118, 150 (Barenberg), pp. 139, 141, 167 (McGuire).

[25] Hearing transcript, p. 9 (Rosenthal), pp. 28-29 (Parsio), p. 34 (Thibado), pp. 35-36, 40 (Grayczyk), p. 128 (Orkisz).

[26] Petition, p. 5.

[27] PET strap is a high tensile strength material used in applications to fasten or package items together. Examples include fastening together bricks, timber or textiles. Fortris, "Load securing products," n.d., https://fortrisuk.co.uk/shop/extruded-polyester-strap/ retrieved July 22, 2020; Plastofine, "Polyester strap," n.d., http://www.plastofine.com/polyester-strap.html retrievedJuly 22, 2020.

[28] Petition, pp. 7-8.

[29] Petition, p. 6.

[30] Conference transcript, pp. 88-89 (Debode, Thibado, Pariso, Rosenthal). A term that is used is PET strap. Fortris, "Load securing products," n.d., https://fortrisuk.co.uk/shop/extruded-polyester-strap/ retrievedJuly 22, 2020; Plastofine, "Polyester strap," n.d., http://www.plastofine.com/polyester-strap.html retrieved July 22 , 2020.

transverse direction in a heated oven. PET film must be re-crystallized (or "heat set") after drawing.[31] Another difference between sheet and film is the property of intrinsic viscosity (IV).[32] PET film has an IV range of 0.60-0.70 deciliters per gram, while PET sheet has an IV range of 0.70-1.00 deciliters per gram. Consistent IV is a desired property of PET sheet.[33] [34]

Manufacturing processes

In the process for manufacturing PET sheet, first PET resin is produced, then the sheet is formed from the resin. PET resin is manufactured from a controlled chemical reaction between the petro-based chemical terephthalic acid ("PTA") and the natural gas-based chemical ethylene glycol ("MEG")[35] in a melt-phased polymerization treatment. Most firms manufacture packaging-grade PET resin by submitting AMPET resin to a solid-state polymerization ("SSP") treatment. An SSP treatment essentially bakes the AMPET resin chips in large cylindrical reaction towers. In these towers the AMPET chips flow through an oxygen-free, nitrogen gas atmosphere at temperatures above 200°C for a period of 18-24 hours. Once the baking is completed, the resin pellets exit the bottom of the reaction tower where air cooling takes place in a closed circuit heat exchanger prior to storage. Some PET resin producers utilize a Melt to Resin ("MTR") process in their manufacturing, which is different from the conventional SSP technology.[36] In MTR technology, no solid state crystallizer is used, which eliminates the cost of that equipment.[37] The MTR process has lower residence time, resulting in minimal generation of secondary products and cross linked polymers (16 hour residence times vs. the conventional 24 hours), lower crystallinity, lower temperature processing, and spherical pellet output

[31] Petition, p. 6.

[32] Intrinsic viscosity is defined as the solution intrinsic viscosity per ASTM D4603.

[33] Hearing transcript, pp. 122, 125 (Barenberg); p. 137 (Orkisz) Conference transcript, p. 75 (DeBode); Petitioners' postconference brief, Exhibit 1, p. 3

[34] Gupta, V.B. and Bashir, Z. (2002) Chapter 7 in Fakirov, Stoyko (ed.) Handbook of Thermoplastic Polyesters, Wiley-VCH, Weinheim.

[35] Petition, p. 4.

[36] Uhde Inventa-Fischer, "MTR Melt-To Resin Technology for cost-efficient, energy saving production of high-quality PET," https://www.tkisrus.com/en/brochures/ retrieved July 22, 2020.

[37] Ibid; Plastemart, "A new technology offers cost benefit to PET producers," http://www.plastemart.com/plastic-technical-articles/carbon-material-graphene-to-replace-silicon-in-electronics/1008, retrieved July 22, 2020.

compared to cylinder shaped output.[38] This leads to lower dust generation and lower IV drop[39] downstream.

PET resin is typically formed into pellets or chips and sold to downstream customers. In the market, those who take PET resin and extrude it use the self-identifying term of "extruders (PET sheet producers)," while those who buy from extruders are known as "thermoformers."[40] [41] Extruders use the raw material of PET resin to produce PET sheet. The PET resin can be categorized as "virgin," which refers to the reaction between MEG and PTA, or "recycled," which is process waste converted to reusable product.[42] Recycled PET chips are most often produced by grinding industrial PET scrap from downstream PET sheet end users or from a PET sheet producer's own manufacturing process, known as regrind.[43] Recycled PET chips may also come from reclaimed post-consumer PET material, such as bottles.[44]

To make PET sheet, the dried and crystallized PET is typically fed through an extruder, which melts, mixes, and conveys the PET to a die, where it is shaped into sheet. First, PET feedstock is fed, typically by vacuum, from a hopper to a feed barrel. A single-screw extruder has a feed barrel containing a large screw that drives forward the PET feedstock, melting it using frictional heat as it travels along the barrel. External heat sources also heat the barrel to bring the melted PET to the required temperature. As the PET heats, pressure increases, forcing the PET to melt through a die at the end of the barrel. The die shapes the melt into a molten flat sheet, which leaves the die at a controlled thickness and flow rate. One or more extruders

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[38] The final output product of the PET resin is in the shape of a sphere or cylinder.

[39] In general, if an application requires high strength, a high intrinsic viscosity (IV) is required, whereas a lower IV is suitable for end uses where the strength of the container is not the critical factor. In PET manufacturing, IV can change depending on the specific process used; for example, moisture can have the effect of decreasing intrinsic viscosity. IV is used by PET producers to control their polymerization processes, to assist end users in the selection of polymers for specific applications, and by converters to control their drying and injection molding processes. If an IV is too low in an end product, the product may be rejected depending on desired specifications and the application. *Polisan Hellas webpage, under document heading "Physicochemical Properties,"* http://www.polisanhellas.com/pdf/Doc_DeclarationofCompliancePoliPET_Eco_84F.pdf, retrieved August 3, 2020.

[40] Hearing transcript, p. 30 (Thibado), p. 35 (Grayczyk), pp. 42-43 (Debode). Conference transcript, pp. 76-77 (Pariso), p. 77 (Thibado), p. 77 (Grayczyk).

[41] Thermoforming is a process by which heat, vacuum, pressure and/or mechanical processes force PET sheet against the contours of a mold.

[42] Petition, p. 5; Oxford dictionary, retrieved July 22, 2020.

[43] Hearing transcript, p. 24 (Parsio), pp. 43-44, 109 (Debode), p. 110 (Ringel).

[44] Petition, p. 5.

can be used to supply melt streams to the die. When more than one extruder is used, this is called co-extrusion. Additives may also be introduced into the melt through satellite extruders.

Hot, putty-like PET sheet is then conveyed from the die through rollers. Rollers may have different finishes, such as a chrome, matte, or textured surface that impart different surface finishes to the PET sheet. Rollers have a double-shell construction with cooling channels. These channels contain continuously-circulating water that cool and minimize temperature variation across the rollers as they absorb heat from the PET sheet. The temperature and speed of the rollers are controlled to determine PET sheet cooling speed and thickness.

After the cooled PET sheet moves through the rollers, it is inspected using polarized light to identify stresses in the material that may be caused by non-uniform temperature or differential cooling or flow rates. The PET sheet is then trimmed to the width specified by the customer. It is wound by spindle into a roll to a maximum weight also specified by the customer.[45]

Whereas the U.S. and Korea use the traditional PET process above, the sole producer from Oman utilizes a Melt to Resin technology for PET resin, and then produces its "direct" PET (D-PET) sheet product, as depicted in Figure 1-1.[46] In this process, the PET resin is in liquid form and advances to sheet directly, so that no solid-state chips or pellets are formed and there is no extrusion.[47] The producer in Oman has four U.S. patents on this sheet process, which are currently in effect.[48] OCTAL reports electrical energy in the production process is reduced by 65 percent, and the resulting PET sheet has different physical properties.[49] When the production

[45] Petition, p. 7.

[46] Hearing transcript, p. 160 (Barenberg); OCTAL's prehearing brief, pp. 20-27, 56; OCTAL's posthearing brief, part II, p. 29.

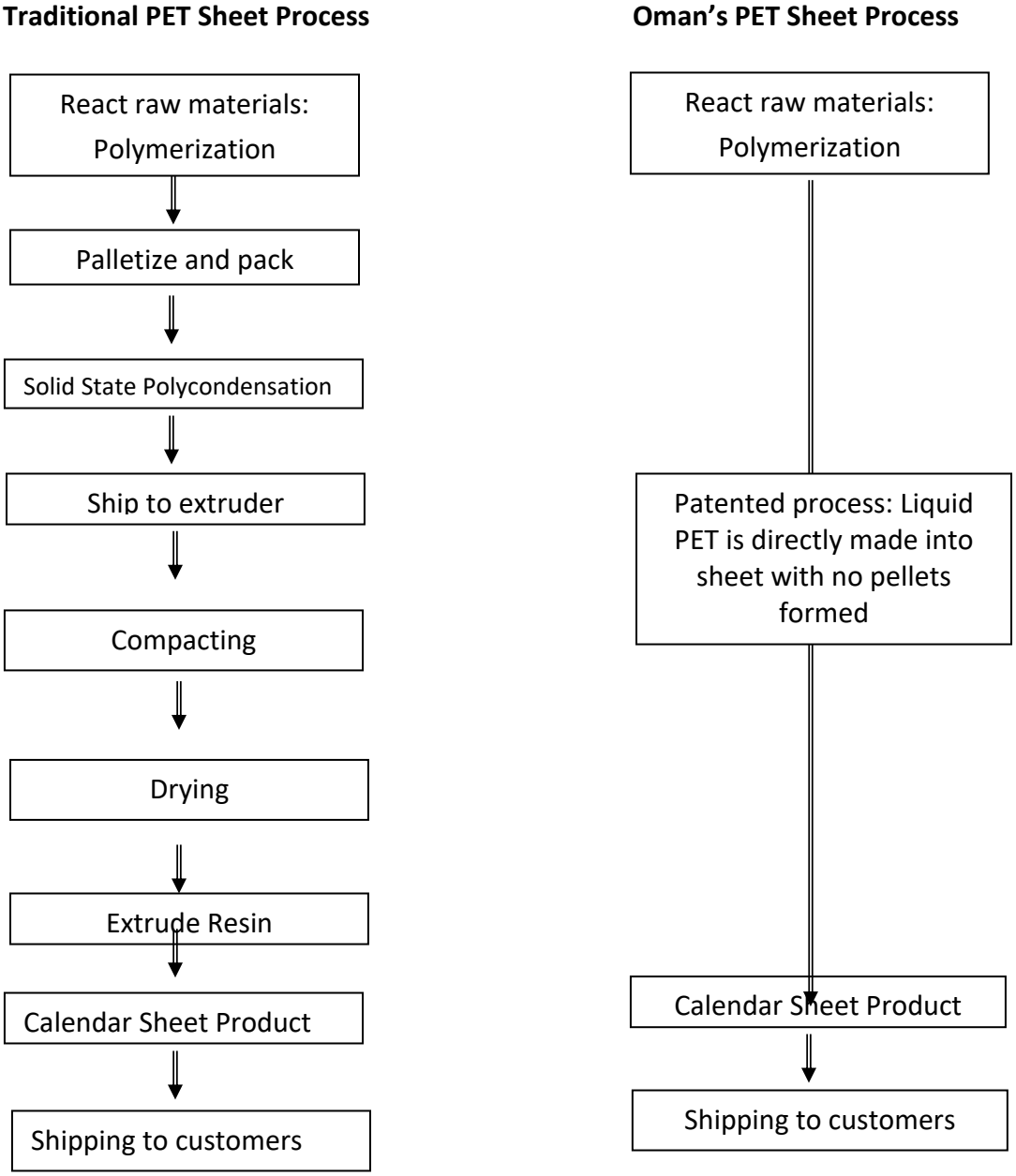
[47] Hearing transcript, p. 147 (Barenberg), p. 99 (Ringel).

[48] U.S. Patent No. 7,931,842 "System and method for making sheets, films, and objects directly from polymerization processes," (expires 11/8/2024); U.S. Patent No. 8,545,205 "System and method for making polyethylene terephthalate sheets and objects," (expires 11/8/2024); U.S. Patent No. 9,011,737 "Advanced control system and method for making polyethylene terephthalate sheets and objects," (expires 12/20/2024), and U.S. Patent No. 8,986,587 "System and method for making polyethylene terephthalate sheets and objects," (expires 11/21/2027).

[49] Hearing transcript, pp. 122-125 (Barenberg). OCTAL SAOC's reported physical property differences in PET sheet product from other producers include better optical properties, better formability, more consistent thickness, more consistent intrinsic viscosity, and lower carbon footprint. No chemical composition differences were reported.

of PET sheet has been completed, it is either internally consumed or sold in rolls to thermoformers who transform it into the final end-use product. [50]

Figure 1-1. PET Sheet Manufacturing



Source: From U.S. patent numbers 7,931,842; 9,011,737; 8,986,587; 8,545,205; Respondent OCTAL's prehearing brief, p. 57.

[50] Hearing transcript, p. 35 (Grayczyk); p. 151 (Barenberg).

Domestic like product issues

No issues with respect to domestic like product have been raised in these investigations. The petitioners propose the domestic like product in these investigations to be polyethylene terephthalate sheet, co-extensive with the scope definition ("PET sheet"). Respondent OCTAL (comprised of OCTAL SAOC and OCTAL Inc.), confirmed it would not raise any like product arguments during the preliminary phase.[51]

*** reported Polyethylene Terephthalate Glycol-Modified (PET-G) sheet as a separate product they produce on the same machinery as PET sheet, although this product is in-scope.[52] [53] One U.S. producer noted that ***.[54]

[51] Conference transcript, p. 11 (Porter) and Respondent OCTAL's postconference brief, p. 18, fn. 28.

[52] See *Antidumping Duty Investigations of Polyethylene Terephthalate Sheet from the Republic of Korea and the Sultanate of Oman: Preliminary Scope Decision Memorandum*, A-580-903, A-523-813, February 25, 2020, p. 5 and ***.

[53] Questionnaires for these firms were revised to incorporate PET-G production and capacity into their in-scope production and capacity data, ***. See email from ***, June 1, 2020.

[54] See email from ***, June 1, 2020.

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

U.S. market characteristics

Almost all PET sheet is thermoformed[1] to make packaging for food (bakery, deli), food service (takeaway, single use packaging), and agricultural (berries, leafy greens, and other produce) uses.[2] Packaging made from PET sheet is a barrier to gasses and oils, resistant to tearing and shattering, typically clear, thermally stable, and recyclable.[3]

Apparent U.S. consumption of PET sheet increased during 2017-19. Overall, apparent U.S. consumption in 2019 was *** percent higher than in 2017.

U.S. purchasers

The Commission received 17 usable questionnaire responses from firms that had purchased PET sheet during 2017-19.[4] [5] Four of the responding purchasers *** are also producers of PET sheet.[6] The responding purchasers represented firms that mainly transform PET sheet into packaging. Eight purchasers reported producing agricultural/food packaging, six reported producing other end-use packaging,[7] three reported distributing PET sheet, one (***) reported producing food, medical, and

[1] Petitioners estimate that 98 percent of PET sheet they sell is used by thermoformers. Conference transcript, p. 62 (Thibado, Parsio). OCTAL reported selling all its PET sheet to thermoformers. Conference transcript, p. 126 (Barenberg).

[2] Conference transcript, p. 127 (Barenberg). PET sheet can also be used in medical face shields.

[3] Conference transcript, p. 17 (Grayczyk). PET is more commonly recycled than other types of plastics. Most drink bottles are made of PET resin, and the producers of bottled drinks have developed a system for recycling PET. Conference transcript, p. 109 (Pyland).

[4] The following firms provided purchaser questionnaire responses: ***.

[5] Of the 17 responding purchasers, all 17 purchased domestic PET sheet, 1 imported PET sheet from Korea, 7 purchased subject merchandise from Oman, and 9 purchased imports of PET sheet from other sources.

[6] Ten U.S. producers reported that they internally consume the PET sheet that they produce and one reported transferring PET sheet to a related firm. All 11 of these producers also reported that they also purchase PET sheet. Four of these firms provided purchaser questionnaires.

[7] This includes one purchaser that reported producing packaging for food and ***.

consumer packaging, and one reported manufacturing consumer goods.[8] Responding U.S. purchasers were located in all regions of the continental United States. The three largest purchasers of PET sheet are ***, which represented *** percent, *** percent, and *** percent respectively (and overall, *** percent), of the purchases and imports reported by all responding purchasers in 2019.

Channels of distribution

U.S. producers sold mainly to agricultural/food end users. Most of the remaining sales to other end users and distributors were limited, as shown in table II-1. Responding importers of PET sheet from Korea reported most sales for agricultural/food packaging, and the remaining sales were to "other" end users. The importer of PET sheet from Oman reported ***. Internal consumption and transfers to related firms represented the majority of U.S. total shipments and quantity in internal consumption increased from *** percent of total U.S. total shipments in 2017 to *** percent of total shipments in 2019.[9] Importers internally consume relatively little of the PET sheet that they import.

[8] This firm (***) reported producing cups, DVD covers, and other products.

[9] U.S. commercial shipments decreased from *** percent of total shipments in 2017 to *** percent in 2019.

Table II-1
PET sheet: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2017-19

Item	Period		
	Calendar year		
	2017	2018	2019
	Share of reported shipments (percent)		
U.S. producers:			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***
U.S. importers: Korea			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***
U.S. importers: Oman			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***
U.S. importers: Subject sources			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***
U.S. importers: Nonsubject sources			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***
U.S. importers: All sources			
to Distributors	***	***	***
to Agricultural/food packaging	***	***	***
to Other end users	***	***	***

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

Geographic distribution[10]

U.S. producers, as well as importers from Korea ***, reported selling PET sheet to all regions in the contiguous United States (table II-2). 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.

[10] Some producers that consumed all their PET sheet internally answered this question, but their responses to this question and other questions about their sales of PET sheet are not included because they did not sell PET sheet.

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

Region	U.S. producers	Importers (Korea)	Importers (Oman)
Northeast	13	3	***
Midwest	14	3	***
Southeast	11	3	***
Central Southwest	10	1	***
Mountain	11	4	***
Pacific Coast	12	3	***
Other	1	---	***
All regions (except Other)	7	---	***
Reporting firms	15	4	1

Note: "Other" regions refers to all other U.S. markets, including AK, HI, PR, and VI.

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

Supply and demand considerations

U.S. supply

Table II-3 provides a summary of the supply factors regarding PET sheet from U.S. producers and from subject countries. Capacity to produce PET sheet, as measured by weight, will vary with the thickness and width of the PET sheet produced. A number of foreign producers reported that they could shift production to other types of plastic. The petitioners reported that they do not use PET sheet equipment for other polymers because different resins have different viscosities and the machines need to be modified for the viscosity of the polymer. These modifications can be expensive.[11] Nonetheless, *** of the 25 responding U.S. producers report that they do produce other products on the same equipment. U.S. producer *** reported that changeover time, and the "relative difficulty in changing materials and skills" are short term factors affecting frequent changes, but do not represent long term hurdles. U.S. producer *** reported that, while ***, there is a cost to switch production to other materials, but that it is the "nature of the business." As discussed later in this chapter, PET sheet is produced-to-order and inventories tend to be low.

[11] Conference transcript, p. 63 (Parsio). Petitioners stated that the ***. See staff email with ***, August 12, 2019.

Table II-3
PET sheet: Supply factors that affect the ability to increase shipments to the U.S. market

	Capacity (million pounds)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2019 (percent)		Able to shift to alternate products
Country	2017	2019	2017	2019	2017	2019	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	1,532	1,792	78.0	71.3	3.6	3.0	98.3	1.7	13 of 25
Korea	149	174	90.6	88.8	2.8	4.6	91.1	***	2 of 5
Oman	***	***	***	***	***	***	***	***	1 of 1

Note: Responding U.S. producers accounted for over 75 percent of U.S. production of PET sheet in 2019. Responding foreign producer/exporter firms accounted for over 25 percent of U.S. imports of PET sheet from Korea during 2019 (see part VII). Responding foreign producer/exporter firms accounted for *** percent of U.S. imports of PET sheet from Oman during 2019 (see part VII). 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 PET sheet have the ability to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced PET sheet to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, and some ability to shift production to or from alternate products. Factors mitigating responsiveness of supply include limited inventories and limited ability to shift shipments from alternate markets.

Capacity utilization decreased as capacity outpaced production increases during 2017-19. Export markets included Canada and Mexico. Other products that producers reportedly can produce on the same equipment as PET sheet are polypropylene, polystyrene, films, Poly Lactic Acid (PLA), high impact polystyrene (HIPS), ***. Factors affecting U.S. producers' ability to shift production include lower demand for alternate products; the cost of shifting production (clean out machines, and change of feed blocks, silos and dryers to prevent contamination);[12] and that the production priority is higher value-added products rather than PET sheet.

[12] One producer reported switching equipment from producing PET sheet to another type of plastic sheet would cost more than purchasing new equipment.

Subject imports from Korea

Based on available information, producers of PET sheet from Korea have the ability to respond to changes in demand with small changes in the quantity of shipments of PET sheet to the U.S. market. The main contributing factor to responsiveness of supply is the ability to shift production to or from alternate products. Factors reducing responsiveness of supply include limited availability of unused capacity, limited inventories, and limited ability to shift shipments from alternate markets.

Capacity utilization decreased as increases in capacity outpaced increases in production during 2017-19. Other products that responding Korean producers reportedly can produce on the same equipment as they use to produce PET sheet are (sheets made of) polycarbonate, polypropylene, polyethylene, and other plastic materials. Main export markets include Canada, Mexico, Japan, New Zealand, Australia, Vietnam, the Commonwealth of Independent States, South America, Oceania, and Africa.

Subject imports from Oman

Based on available information, OCTAL SAOC, the only producer of PET sheet from Oman, is able to respond to changes in demand with *** changes in the quantity of shipments of PET sheet to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of some inventories and the ability to shift shipments from alternate markets. Factors mitigating responsiveness of supply include limited availability of unused capacity and limited ability to shift production to or from alternate products. ***.

Capacity utilization increased because production *** and capacity *** during 2017-19. The main export markets are Canada, the United Kingdom, and EU countries. No barriers to shifting between markets were reported.

Imports from nonsubject sources

Nonsubject imports accounted for *** percent of total U.S. imports of PET sheet reported by the importers in 2019. The largest source of nonsubject imports during 2017-19 was Canada. Canada accounted for *** percent of nonsubject imports of PET sheet reported in 2019 (Table IV-2).

Supply constraints

Most firms did not report supply constraints. However, 4 of 23 responding U.S. producers, 3 of 11 responding importers, and 5 of 17 responding purchasers reported that they had experienced supply constraints since January 1, 2017. U.S. producer *** reported supply was constrained because of a shortage of raw materials in 2017. U.S. producer *** reported that its supply constraint was that it internally consumes PET sheet and it declines to quote prices for PET sheet when requested by other firms. U.S. producer *** reported that its plant has been running at its maximum capacity during the last two years and if the plant has maintenance issues, it will be unable to keep up with demand.

Constraints on product from Oman included supply disruptions to U.S. customers caused by Cyclone Mekunu which caused OCTAL SAOC's PET sheet factory in Oman to close for six weeks in 2018.[13] Two importers reported that supply is constrained because the COVID-19 pandemic has increased demand for PET sheet. Three purchasers (***) reported constraints caused by the cyclone hitting Oman, two purchasers reported Advanced Extrusions declined business because of capacity issues (one of these reported that this occurred when its supply from Oman was reduced because of the cyclone in Oman).

New suppliers

Five of 17 responding purchasers indicated that new suppliers entered the U.S. market since January 1, 2017. Purchasers cited RPlanet (U.S.), Everrank (U.S.), Pro-Ex Extrusions (U.S.), Nan-Ya Plastics (its U.S. facility), Klockner Pentaplast (U.S. producer and importer of PET sheet from Canada and Korea), Green Mind Recycling (Mexico), and Novatex (Pakistan).

U.S. demand

Based on available information, the overall demand for PET sheet is likely to experience small-to-moderate changes in response to changes in price. The main contributing factor is the limited range of substitute products. Purchasers of PET sheet have production processes developed to use this particular plastic. The cost of PET sheet is a large share of the cost of end-use container; however, it is typically a small share of the cost of the consumer product sold in the container.

[13] Conference transcript, p. 12 (Porter).

End uses and cost share

U.S. demand for PET sheet depends on the demand for U.S.-produced downstream products including: food trays, carry-out containers, clamshell containers, drinking cups, medical trays, paint tray liners, consumer packaging, packaging for electro-static sensitive devices (such as integrated computer circuits), and the like.[14] End uses reported by firms include food, other consumer packaging, and medical masks.

Respondents estimate that *** percent of OCTAL's sheet is used for bakery products, *** percent for food service, and *** percent for produce.[15]

PET sheet accounts for a large share of the cost of the main end-use products in which it is used (typically containers). However, it would be a much smaller share of the filled containers that are sold to the consumers. Reported cost shares for some end use products were as follows: 15 to 80 percent of food packaging (including egg cartons); 50 to 64 percent of thermoformed packaging/products/parts; 59 to 60 percent of food trays (meat, vegetable and rolled edge); 5 to 60 percent of clamshells; 85 percent of mushroom tills; 50 percent of consumer/retail packaging; 50 percent of automotive trays; and ***.[16]

Parties disagreed regarding if the cost share of PET sheet in the container or the cost share of the PET sheet in the filled container sold to the consumer is the appropriate cost share to consider. The cost share of PET sheet is large in most of its end-use products (mainly thermoformed PET containers) and, respondents stated that this cost drives the decision between using PET sheet or other products.[17] Petitioners, however, state that there are few substitutes for PET sheet and competition comes from imported PET sheet, not from other types of plastic.[18]

Business cycles

Nine of 23 U.S. producers, 5 of 13 importers, and 6 of 17 purchasers indicated that the market was subject to business cycles or specific conditions of competition. A number of firms reported seasonal demand; some reported higher demand in spring and summer, higher

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[14] Petition p. 5.

[15] Respondent OCTAL's postconference brief, ex. 1, p. 4.

[16] If firms provided cost shares that added up to 100 percent across all products, and did not report the share of other costs, their cost share responses have been removed because they did not understand the question. Cost shares of 100 percent have also been removed.

[17] Conference transcript, pp. 130-131 (Porter).

[18] Conference transcript, p. 69 (Ringel).

demand the second half of the year, and higher demand for meat trays in the summer and for egg cartons at Easter and before holidays for baking. Firms reported that the price of PET sheet changes with the price of PET resin, which in turn fluctuates with the price of oil, supply disruptions, and higher demand for PET resin for drinking bottles in summer. In addition, firms reported that supply disruptions can make acquiring PET sheet difficult and there is a growing preference for low carbon footprint, high clarity, and recycled content.

Five of 14 responding producers, 1 of 7 responding importers, and 4 of 10 responding purchasers reported changes in business cycles or conditions of competition since January 1, 2017. Specifically, the lower cost of producing D-PET sheet allows it to be sold at lower prices, imports have grown and put pressure on prices, competition has become "more extreme," demand for 100 percent recycled PET has increased, and purchaser *** reported that the preference for low carbon footprint, high clarity and recycled content had grown.

Impact of Cyclone Mekunu in Oman

Most producers (10 of 15) and importers (5 of 7), reported that Cyclone Mekunu had an impact on sales. Producers reported delayed deliveries (for their sales of PET sheet), and increased sales volume during the period in which overseas production was lost. Most importers reported increased sales, while OCTAL Inc. reported decreased sales. Most responding purchasers (6 of 11) reported Cyclone Mekunu had no impact on their firms, the remaining firms reported delayed orders (including one firm that purchased only U.S. produced PET sheet), *** reported that Cyclone Mekunu had caused it to purchase PET sheet from U.S. producers, and *** reported purchasing more PET sheet from U.S. and *** sources.

Demand trends

Most firms reported an increase in U.S. demand for PET sheet since January 1, 2017 (table II-4).

Table II-4
PET sheet: Firms' responses regarding U.S. demand and demand outside the United States

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	10	1	2	5
Importers	5	3	3	2
Purchasers	11	---	1	5
Demand for end use products				
Purchasers	10	---	2	2
Demand outside the United States				
U.S. producers	4	2	1	---
Importers	5	3	3	---
Purchasers	7	---	2	2

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

Substitute products

Substitutes for PET sheet are limited. Most U.S. producers (15 of 19 responding), importers (8 of 12), and purchasers (13 of 17) reported that there were no substitutes. Reported substitutes include polycarbonate, polypropylene, acrylics, polystyrene, PVC, HIPS, OPS (biaxial oriented polystyrene), and paper pulp. These substitutes are reported to be used in packaging (mainly for foods), face shields, signs, and ***. Most of the responding firms reported that the price of these substitutes does not affect the price of PET sheet.[19]

*** reported that polystyrene and polypropylene were substitutes for PET sheet, and that food retailers can switch between them relatively easily. *** claimed that the price of these substitutes, therefore, did influence the price of PET sheet. The other producers, importers, and purchasers that reported substitutes reported that the price of other substitute plastics did not influence the price of PET sheet.

Petitioners stated that "our PET sheet customers have no interest in switching to other plastic material like polystyrene or polypropylene or PVC."[20] Petitioners claimed that both OPS and PVD have issues with toxicity and limited recyclability.[21]

Respondent OCTAL reported that polypropylene is a substitute for PET sheet in the production of *** for food service, ***

[19] Only *** reported that the price of substitutes affect the price of PET sheet.
[20] Conference transcript, p. 19 (Grayczyk).
[21] Petitioners' posthearing brief, response to Commission questions, p. 54.

*** for bakeries, and ***[22] and that Starbucks substituted polypropylene for PET sheet in its cups for cold drinks because of the high cost of PET sheet.[23] Respondent OCTAL also claimed that the cost of PET sheet for a thermoformer is more than half of the cost of the product the thermoformers produce.[24]

Substitutability issues

The degree of substitution between domestic and imported PET sheet depends upon such factors as relative prices (e.g., price discounts/rebates), quality (e.g., grade standards, defect rates, formability, clarity, etc.), and conditions of sale (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is a high degree of substitutability between domestically produced PET sheet and PET sheet imported from subject sources.

Lead times

Almost all PET sheet is produced-to-order. U.S. producers reported that 97.6 percent of their commercial shipments were produced-to-order, with lead times averaging 21 days.[25] Importers reported that 99.9 percent of their commercial shipments were produced-to-order, with lead times averaging 68 days.[26]

Knowledge of country sources

Fifteen purchasers indicated they had marketing/pricing knowledge of domestic product, four of Korean product, eight of Omani product, and eight of PET sheet from nonsubject countries.

As shown in table II-5, most purchasers report that their customers typically only sometimes or never make purchasing decisions based on the producer and that they and their customers typically never purchase based on country of origin. Purchasers' responses regarding whether they made purchase decisions based on the producer are mixed, with 9 of 17

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[22] Respondent OCTAL's postconference brief, ex. 1, attachment B.

[23] Conference transcript, p. 111 (Pyland).

[24] Conference transcript, pp. 131-132 (Barenberg).

[25] The remaining 3 percent of their commercial shipments came from inventories, with lead times averaging 12 days.

[26] The remaining 0.1 percent of their commercial shipments are from U.S. inventories, with lead times averaging 3 days.

purchasers reporting they always or usually purchase based on the producer[27] and 8 responding they sometimes or never purchase based on the producer. Two purchasers (***) preferred D-PET only available from Oman. Both reported D-PET sheet was of superior quality to other types of PET sheet. Purchasers reported a number of reasons for preferring domestically produced PET sheet including: lead time/logistics; customer preference; cost; SQF (safe quality food) certification only for U.S. produced PET sheet; and ability to work directly with the supplier.

Table II-5
PET sheet: Purchasing decisions based on producer and country of origin

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	7	2	3	5
Purchaser's customers make decision based on producer	1	1	4	6
Purchaser makes decision based on country	3	3	2	9
Purchaser's customers make decision based on country	1	---	3	8

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 PET sheet were quality (21 firms), price (20 firms) and availability (11 firms), as shown in table II-6. Quality was the most frequently cited first-most important factor (cited by 12 firms), followed by price (7 firms); price was the most frequently reported second-most important factor (8 firms); and availability was the most frequently reported third-most important factor (6 firms).

[27] *** reported they always purchase based on the producer. ***.

Table II-6
PET sheet: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Quality	12	7	2	21
Price	7	8	5	20
Availability/ lead time	3	2	6	11
Capacity of the producer to supply purchaser requirements	0	1	1	2
Service	1	0	2	3
Other	2	2	3	7

Note: Other factors include physiochemical properties of material and traditional supplier listed as first factor, quality of the regrind and processability listed as second factors, and consistency and credit/delivery listed as third factors. One purchaser reported price quality and availability as first factor and listed no other factors, another reported service and quality as first factor, and listed a second factor, but not a third factor. All these responses are included in the table.

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

The majority of purchasers (11 of 17) reported that they usually purchase the lowest-priced product.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 22 factors in their purchasing decisions (table II-7). The factors rated as very important by more than half of responding purchasers were availability and reliability of supply (17 firms each); delivery time, product formability, price, and quality meets industry standards (16 each); product consistency (15); product clarity (14); delivery terms (12); technical support/service (11); PET is R-PET (10); payment terms, quality exceeds industry standards, and U.S. transportation costs (9 each). Most responding purchasers (9) reported that D-PET was not important, and more purchasers reported that carbon footprint was not important than reported that it was very important.

Table II-7
PET sheet: Importance of purchase factors, as reported by U.S. purchasers, by factor

Factor7	Very important	Somewhat important	Not important
Availability	17	---	---
Carbon footprint	3	9	5
Delivery terms	12	4	1
Delivery time	16	1	---
Discounts offered	6	7	4
Minimum quantity requirements	8	6	3
Packaging	6	6	5
Payment terms	9	8	---
PET is A-PET	7	5	5
PET is D-PET	5	3	9
PET is R-PET	10	5	2
Price	16	1	---
Product clarity	14	3	---
Product consistency	15	2	---
Product formability	16	---	1
Product range	7	9	1
Quality meets industry standards	16	1	---
Quality exceeds industry standards	9	5	3
Reliability of supply	17	---	---
Single producer able to provide all your PET sheet needs	6	6	5
Technical support/service	11	3	3
U.S. transportation costs	9	7	1

Note:--A-PET is PET sheet, not produced directly from PET melt, but produced from virgin PET resin. D-PET is PET sheet produced directly from PET melt. R-PET is PET sheet, not produced directly from PET melt, with non-negligible recycled content.

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

Quality

Purchasers were asked to report the characteristics that determine the quality of PET sheet. Almost all responding (13 of 15 responding) purchasers listed clarity (or "clear") as a quality characteristic.[28] Most purchasers also listed other characteristics including: formability (manufacturability); IV (intrinsic viscosity); imperfections (contamination, surface defects); gauge consistency/control; visual characteristics (color, haze); quality of scrap; and documentation or certification.

[28] The three purchasers that did not specifically include the word "clarity or clear" were ***.

OCTAL claimed that the D-PET sheet it imports from Oman is better quality than PET sheet produced in the United States because of its direct-from-melt production process which eliminates a cooling and heating process required when PET sheet is made from PET resin pellets. OCTAL claimed that this production process results in better optical properties, less degradation of the molecules resulting in better performance of the sheet in thermoforming, greater gauge control, a high and consistent IV which reduces cracking and increases the value of the waste, and reduced energy usage.[29]

Petitioners claimed that there is no physical difference between D-PET imported from Oman and the A-PET produced in the United States.[30] Petitioners stated that U.S. producer Ex-Tech's A-PET sheet has a higher IV than ***.[31] Petitioners stated that Advanced's PET sheet and OCTAL's DPET sheet, have nearly identical technical specifications for key characteristics such as specific gravity, tensile strength, thermoforming temperature, and light transmission.[32] In addition, according to Petitioners, firms that purchase both U.S.-produced PET sheet and PET sheet from OCTAL SAOC rate the U.S.-produced PET sheet at least as well as that from Oman including: Advanced's ***;[33] ***;[34] and ***.[35] In addition, ***.[36] Petitioners also asserted that retailers focus on post-consumer recycled content and not on the carbon footprint,[37] and U.S. producers can produce PET sheet with as much post-consumer recycled content as their customers desire.[38]

[29] Hearing transcript, p. 121-122 (Barengerg).
[30] Hearing transcript, p. 106 (Rosenthal, Debode).
[31] Petitioners' posthearing brief, responses to Commissioners' questions p. 33 and exhibit 4, p. 1. ***.
[32] Petitioners' posthearing brief, responses to Commissioners' questions p. 32.
[33] Petitioners' posthearing brief, responses to Commissioners' questions pp. 32-33.
[34] Petitioners' posthearing brief, responses to Commissioners' questions p. 32.
[35] Petitioners' posthearing brief, responses to Commissioners' questions pp. 33-34.
[36] Petitioners' posthearing brief, exhibit 2.
[37] Petitioners' posthearing brief, responses to Commissioners' questions p. 38.
[38] Petitioners' posthearing brief, responses to Commissioners' questions p. 46.

Supplier certification

Most responding purchasers (12 of 17) require their suppliers to become certified or qualified to sell PET sheet to their firms. Purchasers reported that the time to qualify a new supplier ranged from 10 to 180 days. Qualification requirements included requiring samples (trials), requiring product meet FDA approval for direct contact with food, plant visits, documentation, service, and lead time. Two purchasers reported that producers had failed to qualify or had lost their qualification. One of these reported that Everrank did not have FDA approval for A-PET sheet and, as a result, it had failed in its attempt to qualify PET sheet, and the other reported that because of quality issues, Multiplastics was demoted to conditionally approved status.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2017 (table II-8). Purchasers reported decreased purchases of U.S. PET sheet because they had lost business, shifted to Mexican PET sheet, and shifting purchases to PET sheet from Oman. Purchasers reported increased purchases from U.S. producers because of increased sales, because the purchaser was unable to produce the PET sheet it needed, and because PET sheet from Oman was not available because of Cyclone Mekunu. No purchaser reported a reason for changing purchases of Korean product.[39] Purchasers decreased purchases from Oman because of supply interruptions while other purchasers increased purchases of product from Oman because of increased demand, price, and quality (including the quality of regrind). Most firms reporting that their purchases fluctuated reported that this was the result of changes in demand, although one purchaser reported that it added OCTAL Extrusion when supplies from Oman were limited because of the cyclone.

Seven of 17 responding purchasers reported that they had changed suppliers since January 1, 2017. Specifically, firms added or increased purchases from Granwell, Extech, and Nam Polymers because OCTAL SAOC's supply was limited in 2018; a Korean supplier was added to evaluate its quality; amount purchased from the purchaser's five suppliers varied based on demand, price and quality; increased purchases from RPlanet Earth, Green Mind Recycling, and Everrank; a purchase from Novatex in Pakistan; and purchases were discontinued from Heritage Renewable because it closed.

[39] One purchaser reported that it did not purchase Korean product but explained it only purchased sample quantities.

Table II-8
PET sheet: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	---	5	6	2	8
Korea	12	---	2	---	---
Oman	7	3	8	---	---
Canada	10	---	3	---	---
Other	8	2	3	---	3
Sources unknown	7	---	1	---	---

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

Importance of purchasing domestic product

Twelve of 15 responding purchasers reported that none of their purchases require purchasing U.S.-produced product.[40] The remaining three purchasers reported other preferences for domestic product. Reasons cited for preferring domestic product included: the purchaser does not verify foreign suppliers, therefore, it purchases only from U.S. producers; domestic purchases are based on demand for colored trays; and lead time.

Scrap agreements

Purchasers were asked if they had agreements to sell the scrap PET sheet material resulting from their production of downstream products. Eleven of 17 responding purchasers reported they had scrap agreements, ***. These firms reported agreements with Advanced Extrusion, Ex-Tech, Klockner, OCTAL Extrusion, "the supplier", and Sonoco (Mexico).[41] In addition, one purchaser reported that Multi-Plastics, as well as OCTAL Extrusion, will buy scrap made from PET sheet produced by OCTAL SAOC.[42]

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing PET sheet produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same factors (table II-9) for which they were asked to rate the importance. Only two purchasers compared U.S. and Korean product.[43] Most

[40] No purchaser reported any Buy American requirement.

[41] ***.

[42] OCTAL contends that because its production process in Oman eliminates the heating and cooling of the PET resin before the production of PET sheet, the scrap from D-PET is better quality than other types of scrap PET sheet.

[43] Both purchasers reported U.S. and Korean product were comparable for 8 of 22 factors; one purchaser each reported U.S. product was superior and U.S. and Korean product were comparable for

(*continued*...)

responding purchasers reported that U.S.-produced and Omani PET sheet were comparable for 14 of 22 factors. Most responding purchasers reported that U.S. product was superior to Omani product for delivery time, and half reported U.S. product was superior for PET is R-PET, and most reported product from Oman was superior for carbon footprint, PET is D-PET, price, and product consistency. Responses were mixed for other factors.[44] Only two purchasers compared PET sheet from Korea and Oman.[45]

(…*continued*)
delivery terms, delivery time, packaging, payment terms, PET is R-PET, product consistency, quality exceeds industry standards, reliability of supply, single producer able to provide all your PET sheet needs, technical support/service and U.S. transportation costs. One firm each reported U.S. and Korean PET sheet were comparable, and U.S. was inferior on availability. Only one purchaser responded for PET is A-PET and PET is D-PET, reporting that U.S. and Korean product were comparable with respect to availability of these.

[44] Four purchasers each reported U.S. and Oman PET sheet were comparable and U.S. PET sheet was inferior for product clarity, four purchasers each reported U.S. and Oman product were comparable and U.S. product was inferior for a single producer able to provide all your needs, and three firms reported U.S. product was superior and four reported U.S. and Oman PET sheet were comparable for reliability of supply.

[45] All responding purchasers reported Korean and Oman PET sheet were comparable for 15 of 22 factors. For the remaining seven factors (delivery time, PET is A-PET, PET is R-PET, price, product consistency, quality meets industry standards, and quality exceeds industry standards), one purchaser each reported product from Korea and Oman were comparable and that Korean product was inferior.

Table II-9
PET sheet: Purchasers' comparisons between U.S.-produced and imported product

Factor	U.S. vs. Korea			U.S. vs. Oman			Korea vs. Oman		
	S	C	I	S	C	I	S	C	I
Availability	---	1	1	1	6	2	---	2	---
Carbon footprint	---	2	---	1	3	5	---	2	---
Delivery terms	1	1	---	2	6	---	---	1	---
Delivery time	1	1	---	5	3	1	---	1	1
Discounts offered	---	2	---	---	8	1	---	2	---
Minimum quantity requirements	---	2	---	1	7	1	---	2	---
Packaging	1	1	---	1	7	1	---	2	---
Payment terms	1	1	---	---	8	---	---	1	---
PET is A-PET	---	1	---	1	6	---	---	1	1
PET is D-PET	---	1	---	---	2	6	---	1	---
PET is R-PET	1	1	---	4	3	1	---	1	1
Price	---	2	---	1	2	6	---	1	1
Product clarity	---	2	---	---	5	4	---	2	---
Product consistency	1	1	---	---	4	5	---	1	1
Product formability	---	2	---	---	5	4	---	2	---
Product range	---	2	---	---	6	3	---	2	---
Quality meets industry standards	---	2	---	---	7	2	---	1	1
Quality exceeds industry standards	1	1	---	---	6	3	---	1	1
Reliability of supply	1	1	---	3	4	2	---	2	---
Single producer able to provide all your PET sheet needs	1	1	---	1	4	4	---	2	---
Technical support/service	1	1	---	---	7	2	---	2	---
U.S. transportation costs	1	1	---	1	5	3	---	2	---

Table continued on next page.

Table II-9--Continued
PET sheet: Purchasers' comparisons between U.S.-produced and imported product

Factor	U.S. vs. nonsubject			Korea vs. nonsubject			Oman vs. nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	2	4	---	---	1	---	---	2	---
Carbon footprint	2	4	---	---	1	---	---	2	---
Delivery terms	1	5	---	---	1	---	---	1	1
Delivery time	2	4	---	---	1	---	---	1	1
Discounts offered	1	4	---	---	1	---	---	2	---
Minimum quantity requirements	3	3	---	---	1	---	---	2	---
Packaging	1	4	1	---	1	---	---	2	---
Payment terms	1	3	2	---	1	---	---	2	---
PET is A-PET	2	4	---	---	1	---	---	2	---
PET is D-PET	---	3	---	---	1	---	---	2	---
PET is R-PET	1	4	1	---	1	---	---	2	---
Price	1	4	1	---	1	---	1	1	---
Product clarity	2	4	---	1	---	---	1	1	---
Product consistency	1	5	---	---	1	---	---	2	---
Product formability	1	5	---	---	1	---	---	2	---
Product range	---	6	---	---	1	---	---	2	---
Quality meets industry standards	1	5	---	---	1	---	---	2	---
Quality exceeds industry standards	1	4	1	---	1	---	---	2	---
Reliability of supply	1	5	---	---	1	---	---	1	1
Single producer able to provide all your PET sheet needs	---	6	---	---	1	---	---	2	---
Technical support/service	2	4	---	---	1	---	---	2	---
U.S. transportation costs	3	3	---	---	1	---	---	2	---

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.

Of the six factors that all or all but one responding purchaser reported were very important in table II-7, U.S. and Korean PET sheet were reported as comparable by both responding purchasers on three factors: price; product formability; and quality meets industry standards. One purchaser reported the U.S.-produced PET sheet was superior to Korean PET sheet for delivery time and reliability of supply, while one reported U.S.-produced PET sheet was inferior to Korean PET sheet for availability. Most responding purchasers reported U.S.-produced and Omani PET sheet were comparable with respect to availability, product formability, and quality meets industry standards and most reported U.S. product was superior on delivery time and inferior on price. There was no consensus on reliability of supply, however the most common response was that PET sheet from the United States and Oman are comparable for reliability of supply.

Comparison of U.S.-produced and imported PET sheet

In order to determine whether U.S.-produced PET sheet can generally be used in the same applications as imports from Korea and Oman, 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-10, most U.S. producers reported that products were always interchangeable for all country pairs. Most responding importers reported product from all country pairs were always interchangeable, except for Oman and nonsubject Canada when compared to other sources. For these pairs, most importers responded that product from these sources was either always or frequently interchangeable. Most responding purchasers reported that PET sheet from all country pairs was either always or frequently interchangeable. Interchangeability is limited by differences in the type of PET sheet since D-PET is available only from Oman and it offers high clarity, less breakage, and a low carbon footprint. Purchasers also reported that OCTAL's control of PET sheet thickness allows the purchaser to down gauge, using less weight and reducing raw material costs; proprietary technology; and Oman PET is not qualified for some products.

Table II-10
PET sheet: Interchangeability between PET sheet 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	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Korea	11	5	---	1	7	2	1	---	1	1	---	---
U.S. vs. Oman	12	4	4	1	5	1	---	1	3	3	3	---
Subject countries comparisons:												
Korea vs. Oman	8	4	2	1	5	1	---	1	1	1	---	---
Nonsubject countries comparisons:												
U.S. vs. Canada	11	4	1	1	5	2	---	---	2	3	---	---
U.S. vs. Other	12	3	2	1	6	2	---	---	3	2	1	---
Korea vs. Canada	8	4	---	1	5	1	1	---	---	1	---	---
Korea vs. Other	9	3	1	1	4	2	---	---	1	1	---	---
Oman vs. Canada	8	4	2	1	5	1	---	1	---	3	---	---
Oman vs. Other	9	3	2	1	3	2	---	1	1	1	---	---
Canada vs. Other	9	4	---	1	3	2	1	---	1	1	---	---

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

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

As can be seen from table II-11, most of the responding purchasers (9 of 17) reported that domestically produced product always met minimum quality specifications; the others

reported it usually did. Two of three responding purchasers reported that PET sheet imported from Korea always or usually met minimum quality specifications. Seven of nine responding purchasers reported that PET sheet imported from Oman always met minimum quality specifications. The one purchaser (***) that reported imported product rarely or never met minimum quality specifications purchased only domestically produced PET sheet and provided no explanation of why imports did not meet minimum quality specifications.

Table II-11
PET sheet: Ability to meet minimum quality specifications, by source

Source	Always	Usually	Sometimes	Rarely or never
United States	9	8	---	---
Korea	1	1	---	1
Oman	7	1	---	1
Canada	1	2	---	1
All other	3	2	---	1

Note: Purchasers were asked how often domestically produced or imported PET sheet 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 PET sheet from the United States, subject, or nonsubject countries. As seen in table II-12, most responding U.S. producers and importers reported that there are either sometimes or never significant differences other than price between PET sheet from all country pairs. Purchaser responses were more varied, with most responding purchasers reporting there were sometimes or never significant differences other than price between PET sheet from U.S. and Korea, Korea and Oman, Korea and other, and Oman and other. Purchasers' most common response was there are frequently or always significant differences other than price for PET sheet from the United States and Oman, United States and Canada, Korea and Canada, and United States and other. Individual purchasers listed factors other than price (not listed previously) including: Oman product has a higher quality regrind for use in production of PET sheet, is better for silicone applications, and does not have quality issues of the U.S. producer; PET sheet from Mexico has quality and clarity issues; imported material may not meet FDA approval for food uses; imports from countries other than Canada, Korea, and Oman tend to be defective, with low intrinsic viscosity, and contamination; and differences between PET sheet from different countries in quality, availability, transportation, product range, technology, technical support, and customization.

Table II-12
PET sheet: Significance of differences other than price between PET sheet 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	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Korea	2	---	7	8	1	3	---	5	1	---	1	1
U.S. vs. Oman	5	2	8	6	2	---	1	3	2	3	3	2
Subject countries comparisons:												
Korea vs. Oman	2	---	6	5	2	---	---	3	---	---	1	1
Nonsubject countries comparisons:												
U.S. vs. Canada	2	---	7	8	---	---	1	4	1	2	2	---
U.S. vs. Other	2	2	7	7	1	1	3	3	4	---	1	1
Korea vs. Canada	1	---	5	6	1	---	1	3	---	1	---	---
Korea vs. Other	1	1	6	6	1	1	2	2	---	---	1	---
Oman vs. Canada	2	---	7	4	1	---	2	2	---	1	2	1
Oman vs. Other	2	---	9	4	1	1	2	2	---	---	1	---
Canada vs. Other	1	---	7	6	---	---	3	3	---	---	---	---

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

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

Elasticity estimates

This section discusses elasticity estimates. Parties were encouraged to comment on these estimates in their prehearing or posthearing brief, no comments were provided.

U.S. supply elasticity

The domestic supply elasticity for PET sheet measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of PET sheet. 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 PET sheet. 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 PET sheet measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of PET sheet. This estimate depends on factors

discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the PET sheet in the production of any downstream products. Based on the available information, the aggregate demand for PET sheet is likely to be inelastic; a range of -0.25 to -0.5 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[46] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, formability, 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 PET sheet and imported PET sheet is likely to be in the range of 3 to 6.

[46] 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.

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 dumping 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 25 firms that accounted for an estimated 88.9 percent of U.S. production of PET sheet during 2019.

U.S. producers

The Commission issued a U.S. producer questionnaire to 39 firms based on information contained in the petition, additional U.S. producers identified by a respondent's counsel, and potential U.S. producers identified in questionnaire responses. Twenty-five firms provided usable data on their operations.[1] Staff believes that these responses represent 88.9 percent of U.S. production of PET sheet in 2019.[2]

Table III-1 lists U.S. producers of PET sheet, their production locations, positions on the petition, and shares of total production.

[1] Of the remaining 14 firms: Seven confirmed U.S. producers did not submit a U.S. producer questionnaire, but did submit partial production and capacity data; six firms certified they had not produced PET sheet since January 1, 2017 (***), and one firm, ***, submitted an incomplete questionnaire response that was not used.

[2] To calculate U.S. producer questionnaire coverage, staff divided 2019 production quantities reported in questionnaire responses by 2019 production data that was received from all U.S. producers either via a usable questionnaire response or an email to staff. Production quantities for 2018 reported during the preliminary phase were used to estimate 2019 production quantities for two firms that did not provide 2019 production data: ***. The following 2019 production and capacity data were reported by the remaining six firms that did not submit a usable questionnaire response: ***.

Table III-1
PET sheet: U.S. producers, their position on the petition, location of production, and share of reported production, 2019

Firm	Position on petition	Production location(s)	Type(s) of shipments	Share of production (percent)
Advanced Extrusion	Petitioner	Rogers, MN	***	***
Amcor	***	Oshkosh, WI	***	***
D&W Fine Pack	***	Elk Grove Village, IL Ft Calhoun, NE	***	***
Dart	***	Chicago, IL Ada, OK Urbana, IL Randleman, NC Leola, PA Conyers, GA	***	***
Direct Pack	***	Sun Valley, CA	***	***
EasyPak	***	Leominster, MA Vernon, CA Kalamazoo, MI	***	***
Ex-Tech	Petitioner	Richmond, IL	***	***
Global Plastics	***	Perris, CA	***	***
Klockner	***	Beaver, West Virginia Gordonsville, VA Rural Retreat, VA	***	***
Mercury	***	Chicago, IL Franklin Park, IL	***	***
Multi Plastics	Petitioner	Hazleton, PA	***	***
Nan Ya	***	Wharton, TX	***	***
OCTAL Extrusion	***	Cincinnati, OH	***	***
Pactiv	***	Abilene, TX Mineral Wells, WV Franklin Park, IL Santa Fe Springs, CA Bridgeview, IL Bedford Park, IL Conyers, GA Huntersville, NC	***	***
Pacur	***	Oshkosh, WI	***	***
Panoramic	***	Janesville, WI	***	***
Placon	***	Madison, WI	***	***
Plastic Ingenuity	***	Cross Plains, WI Mazomanie, WI Maumelle, AR Oxford, NC	***	***
Primex	***	Garfield, NJ	***	***
Royal Interpack	***	Riverside, CA Whitestown, IN	***	***

Table continued on next page.

Table III-1 – Continued
PET sheet: U.S. producers, their position on the petition, location of production, and share of reported production, 2019

Firm	Position on petition	Production location(s)	Type(s) of shipments	Share of production (percent)
rePlanet Packaging	***	Visalia, CA	***	***
rPlanet Earth	***	Vernon, CA	***	***
Sonoco	***	Wilson, NC Plant City, FL Yakima, WA Exeter, CA	***	***
Spartech	***	Sheboygan Falls, WI Muncie, IN Greenville, OH Ripon, WI	***	***
Tekni-Plex	***	Holland, OH	***	***
Producers with only commercial sales (CS)				17.9
Producers with only internal consumption and/or transfers (IC)				66.5
Producers with mix of CS and (IC or transfers)				15.7
Total				100.0

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.

Table III-2
PET sheet: U.S. producers' ownership, related and/or affiliated firms

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

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

As indicated in table III-2, four U.S. producers are related to foreign producers of the subject merchandise and two U.S. producers are related to U.S. importers of the subject merchandise.[3] In addition, as discussed in greater detail below, five U.S. producers directly import the subject merchandise and eight purchase the subject merchandise from U.S. importers.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2017. Nine expansions, six prolonged shutdowns or curtailments, two plant openings, two plant closings, two acquisitions, and one relocation were reported.

Table III-3
PET sheet: U.S. producers' reported changes in operations, since January 1, 2017

Item / Firm	Reported changed in operations
Plant openings:	
***	***
***	***
Plant closings:	
***	***
***	***
Relocations:	
***	***
Expansions:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

[3] ***.

Table III-3 – Continued
PET sheet: U.S. producers' reported changes in operations, since January 1, 2017

Item / Firm	Reported changed in operations
Acquisitions:	
***	***
***	***
Prolonged shutdowns or curtailments:	
***	***
***	***
***	***
***	***
***	***
***	***
Other:	
***	***
***	***
***	***
***	***
***	***

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 U.S. producers' production, capacity, and capacity utilization. From 2017 to 2019, U.S. producers' capacity increased by a greater amount (17.0 percent) than U.S. producers' production (6.6 percent), resulting in a 6.9 percentage point reduction in capacity utilization.

Ten of the 25 responding U.S. producers only internally consume or transfer to related firms the PET sheet they produce, nine only sell the PET sheet they produce, and six do both. The three largest U.S. producers of PET sheet – *** represented *** percent of total production in 2019, and *** only internally consume or transfer to related firms the PET sheet they produce.

From 2017 to 2019, capacity increased by 30.0 percent for U.S. producers that only sold PET sheet commercially, by 15.0 percent for U.S. producers that only internally consumed PET sheet or transferred PET sheet to related firms, and by 8.7 percent for U.S. producers that did both. From 2017 to 2019, production decreased by 0.5 percent for U.S. producers that only sold PET sheet commercially, increased by 9.8 percent for U.S. producers that only internally consumed PET sheet or transferred PET sheet to related firms, and increased by 2.7 percent for U.S. producers that did both.

Table III-4
PET sheet: U.S. producers' capacity, production, and capacity utilization, 2017-19

Item	Calendar year		
	2017	2018	2019
	Capacity (1,000 pounds)		
Advanced Extrusion	***	***	***
Amcor	***	***	***
D&W Fine Pack	***	***	***
Dart	***	***	***
Direct Pack	***	***	***
EasyPak	***	***	***
Ex-Tech	***	***	***
Global Plastics	***	***	***
Klockner	***	***	***
Mercury	***	***	***
Multi Plastics	***	***	***
Nan Ya	***	***	***
Octal	***	***	***
Pactiv	***	***	***
PACUR	***	***	***
Panoramic	***	***	***
Placon	***	***	***
Plastic Ingenuity	***	***	***
Primex	***	***	***
Royal Interpack	***	***	***
rePlanet Packaging	***	***	***
rPlanet Earth	***	***	***
Sonoco	***	***	***
Spartech	***	***	***
Tekni-Plex	***	***	***
Producers with only commercial sales (CS)	311,369	337,478	404,650
Producers with only internal consumption and/or transfers (IC)	968,115	1,106,138	1,113,248
Producers with mix of CS and (IC or transfers)	252,647	247,690	274,524
All firms	1,532,131	1,691,306	1,792,422

Table continued on next page.

Table III-4 – Continued
PET sheet: U.S. producers' capacity, production, and capacity utilization, 2017-19

Item	Calendar year		
	2017	2018	2019
	Production (1,000 pounds)		
Advanced Extrusion	***	***	***
Amcor	***	***	***
D&W Fine Pack	***	***	***
Dart	***	***	***
Direct Pack	***	***	***
EasyPak	***	***	***
Ex-Tech	***	***	***
Global Plastics	***	***	***
Klockner	***	***	***
Mercury	***	***	***
Multi Plastics	***	***	***
Nan Ya	***	***	***
Octal	***	***	***
Pactiv	***	***	***
PACUR	***	***	***
Panoramic	***	***	***
Placon	***	***	***
Plastic Ingenuity	***	***	***
Primex	***	***	***
Royal Interpack	***	***	***
rePlanet Packaging	***	***	***
rPlanet Earth	***	***	***
Sonoco	***	***	***
Spartech	***	***	***
Tekni-Plex	***	***	***
Producers with only commercial sales (CS)	228,606	243,295	227,456
Producers with only internal consumption and/or transfers (IC)	771,499	857,327	846,730
Producers with mix of CS and (IC or transfers)	194,386	193,960	199,694
All firms	1,194,491	1,294,581	1,273,880

Table continued on next page.

Table III-4 – Continued
PET sheet: U.S. producers' capacity, production, and capacity utilization, 2017-19

Item	Calendar year		
	2017	2018	2019
	Capacity utilization (percent)		
Advanced Extrusion	***	***	***
Amcor	***	***	***
D&W Fine Pack	***	***	***
Dart	***	***	***
Direct Pack	***	***	***
EasyPak	***	***	***
Ex-Tech	***	***	***
Global Plastics	***	***	***
Klockner	***	***	***
Mercury	***	***	***
Multi Plastics	***	***	***
Nan Ya	***	***	***
Octal	***	***	***
Pactiv	***	***	***
PACUR	***	***	***
Panoramic	***	***	***
Placon	***	***	***
Plastic Ingenuity	***	***	***
Primex	***	***	***
Royal Interpack	***	***	***
rePlanet Packaging	***	***	***
rPlanet Earth	***	***	***
Sonoco	***	***	***
Spartech	***	***	***
Tekni-Plex	***	***	***
Producers with only commercial sales (CS)	73.4	72.1	56.2
Producers with only internal consumption and/or transfers (IC)	79.7	77.5	76.1
Producers with mix of CS and (IC or transfers)	76.9	78.3	72.7
All firms	78.0	76.5	71.1

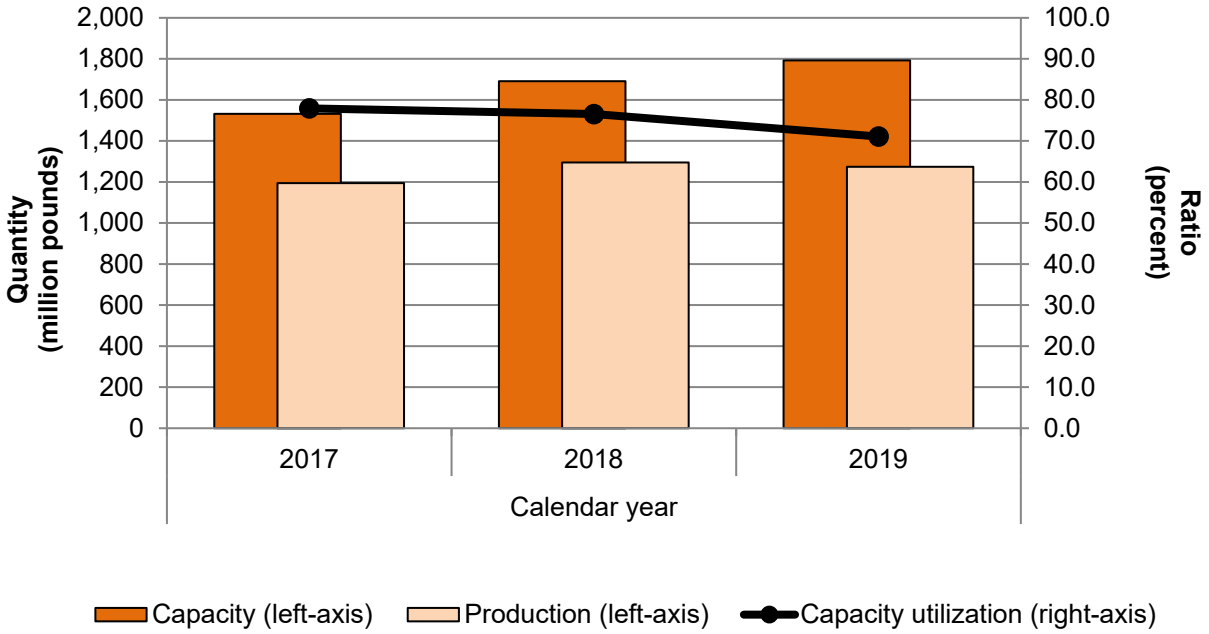
Table continued on next page.

Table III-4 – Continued
PET sheet: U.S. producers' capacity, production, and capacity utilization, 2017-19

Item	Calendar year		
	2017	2018	2019
	Share of production (percent)		
Advanced Extrusion	***	***	***
Amcor	***	***	***
D&W Fine Pack	***	***	***
Dart	***	***	***
Direct Pack	***	***	***
EasyPak	***	***	***
Ex-Tech	***	***	***
Global Plastics	***	***	***
Klockner	***	***	***
Mercury	***	***	***
Multi Plastics	***	***	***
Nan Ya	***	***	***
Octal	***	***	***
Pactiv	***	***	***
PACUR	***	***	***
Panoramic	***	***	***
Placon	***	***	***
Plastic Ingenuity	***	***	***
Primex	***	***	***
Royal Interpack	***	***	***
rePlanet Packaging	***	***	***
rPlanet Earth	***	***	***
Sonoco	***	***	***
Spartech	***	***	***
Tekni-Plex	***	***	***
Producers with only commercial sales (CS)	19.1	18.8	17.9
Producers with only internal consumption and/or transfers (IC)	64.6	66.2	66.5
Producers with mix of CS and (IC or transfers)	16.3	15.0	15.7
All firms	100.0	100.0	100.0

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

Figure III-1
PET sheet: U.S. producers' capacity, production, and capacity utilization, 2017-19



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

Alternative products

As shown in table III-5, between 90.7 and 91.9 percent of the product produced during 2017 to 2019 by U.S. producers was PET sheet. Eleven of the 25 responding firms reported production of other products on the same machinery as PET sheet.[4] These products included polypropylene, polystyrene, polyethylene, polylactic acid (PLA), crystallized PLA, shrink sleeve label films, thinner gauge nylon extruded film, high impact polystyrene (HIPS), propylene based products, specialty copolyesters, lenticular, sheet of other materials (HIPS, PLA, and polypropylene), and PET sheet greater than 45 mils.

Table III-5
PET sheet: U.S. producers' overall capacity and production on the same equipment as subject production, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Overall capacity	1,713,037	1,878,987	1,975,486
Production:			
PET sheet	1,194,491	1,294,581	1,273,880
Out-of-scope production	122,591	121,136	112,738
Total production on same machinery	1,317,082	1,415,718	1,386,618
	Ratios and shares (percent)		
Overall capacity utilization	76.9	75.3	70.2
Share of production:			
PET sheet	90.7	91.4	91.9
Out-of-scope production	9.3	8.6	8.1
Total production on same machinery	100.0	100.0	100.0

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

[4] *** initially reported Polyethylene Terephthalate Glycol-Modified (PET-G) sheet as a separate product they produce on the same machinery as PET sheet. PET-G is within the scope of these investigations, so these firms' questionnaires were revised to incorporate PET-G production and capacity into their in-scope production and capacity data, ***. See email from ***, June 1, 2020. ***. See email from ***, June 5, 2020.

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. The majority of U.S. producers' U.S. shipments consisted of internal consumption: approximately three-fourths, by quantity, and two-thirds, by value, of total shipments consisted of internal consumption or transfers to related firms during the 2017-2019 period, while approximately one-third, by value, and one-fourth, by quantity, consisted of commercial shipments.

U.S. shipments increased by 6.7 percent in quantity and 7.7 percent in value from 2017 to 2019. During this period, internal consumption increased by *** percent in quantity and *** percent in value, while U.S. commercial shipments decreased by 10.2 percent in quantity and 7.2 percent in value. From 2017 and 2019, unit values for U.S. commercial shipments were higher than unit values for internal consumption by between *** to *** per pound, and both increased during this time, by 3.3 and *** percent, respectively.

Eight of the 25 U.S. producers reported export shipments, representing under 2.0 percent of total shipments, by quantity, throughout the 2017 to 2019 period.[5] Export shipments increased by 19.7 percent in quantity and 16.5 percent in value, from 2017 to 2019. The average unit values for export shipments were notably higher than average unit values of internal consumption and U.S. commercial shipments.[6]

From 2017 to 2019, U.S. commercial shipments' share of total shipments decreased by 4.2 percentage points in quantity and 4.6 percentage points in value, while internal consumption shipments' share of total shipments increased by *** percentage points in quantity and *** percentage points in value.

[5] U.S. producers reported principal export markets in ***.

[6] *** export shipments' average unit values ranged from ***, while the average unit values of export shipments reported by the other *** U.S. producers that reported export shipments ranged from ***. ***. Staff telephone interview with ***.

Table III-6
PET sheet: U.S. producers' U.S. shipments, export shipments, and total shipments, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Commercial U.S. shipments	315,048	321,346	282,955
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	1,170,962	1,279,300	1,249,904
Export shipments	18,422	17,491	22,050
Total shipments	1,189,384	1,296,791	1,271,955
	Value (1,000 dollars)		
Commercial U.S. shipments	342,019	369,193	317,427
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	1,025,862	1,150,878	1,104,651
Export shipments	22,969	22,371	26,762
Total shipments	1,048,831	1,173,248	1,131,413
	Unit value (dollars per pound)		
Commercial U.S. shipments	1.09	1.15	1.12
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	0.88	0.90	0.88
Export shipments	1.25	1.28	1.21
Total shipments	0.88	0.90	0.89
	Share of quantity (percent)		
Commercial U.S. shipments	26.5	24.8	22.2
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	98.5	98.7	98.3
Export shipments	1.5	1.3	1.7
Total shipments	100.0	100.0	100.0
	Share of value (percent)		
Commercial U.S. shipments	32.6	31.5	28.1
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	97.8	98.1	97.6
Export shipments	2.2	1.9	2.4
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 these inventories to U.S. producers' production, U.S. shipments, and total shipments. End-of period inventories held by U.S. producers increased for ten U.S. producers and decreased for nine U.S. producers from 2017 to 2019 (six U.S. producers reported no end-of-period inventories during the data collection period). End-of-period inventories decreased by 9.5 percent from 2017 to 2018, then increased by 1.9 percent from 2018 to 2019, for an overall decrease of 7.8 percent from 2017 to 2019. The ratio of inventories to U.S. production, U.S. shipments, and total shipments remained relatively stable, ranging between 2.9 percent to 3.6 percent from 2017 to 2019.

Table III-7
PET sheet: U.S. producers' inventories, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
U.S. producers' end-of-period inventories	42,142	38,141	38,850
	Ratio (percent)		
Ratio of inventories to.--			
U.S. production	3.5	2.9	3.0
U.S. shipments	3.6	3.0	3.1
Total shipments	3.5	2.9	3.1

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

U.S. producers' imports and purchases

Fifteen of the 25 responding U.S. producers reported purchases of imported or domestically produced PET sheet. Fourteen U.S. producers purchased PET sheet from other domestic sources. Eight U.S. producers reported purchases of PET sheet from Oman,[7] one U.S. producer reported purchases of PET sheet from Korea, and seven U.S. producers reported purchases of imports from nonsubject countries.

U.S. producers' direct imports of PET sheet are presented in table III-8. *** U.S. producers imported PET sheet from subject countries, including ***.[8] [9] *** is a net importer of PET sheet. *** imports ranged from the equivalent of *** percent of *** 2018 production, to *** percent of *** production in 2019. *** imported PET sheet from subject sources equivalent to *** percent of its production in 2017, and *** percent of its production in 2018. *** imported PET sheet from subject sources equivalent to *** percent of its 2018 production and *** percent of its 2019 production. *** imported PET sheet from subject sources equivalent to *** percent of its production in 2017 and *** percent of its production in 2018.

[7] There are only purchases, and no direct imports (i.e., when the U.S. customer is the official importer of record for the subject merchandise), of PET sheet from Oman, as OCTAL Inc. is the official importer of record for 100 percent of imports from Oman. Conference transcript, p. 93 (Porter).

[8] *** did not submit a U.S. producer questionnaire in the preliminary or final investigations, and thus, is not presented in table III-8. However, it reported in its importer questionnaire response during the preliminary phase that it imported *** in 2018, while it produced *** pounds of PET sheet in 2018. See *** U.S. Importer Questionnaire Response at Question II-5a and Question II-6a, and email from *** to USITC investigator on August 13, 2019. During the final phase of the investigations, ***. See email from *** to USITC Investigator on June 15, 2020. Proprietary Customs records indicate that ***.

[9] ***.

Table III-8
PET sheet: U.S. producers' imports, 2017-19

* * * * * * *

Table continued on next page.

Table III-8 – Continued
PET sheet: U.S. producers' imports, 2017-19

* * * * * * *

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

U.S. employment, wages, and productivity

Table III-9 shows U.S. producers' employment-related data. From 2017 to 2019, production and related workers ("PRWs"), total hours worked, wages paid, hourly wages, productivity, and unit labor costs increased, while hours worked per PRW decreased.

From 2017 to 2019, the number of PRWs increased by 10.3 percent, while hours worked only increased by 3.4 percent, resulting in a decrease of 124.2 hours worked per PRW. From 2017 to 2019, total wages paid increased by 17.6 percent, and hourly wages increased by 13.7 percent.

Productivity increased by 8.4 pounds per hour from 2017 to 2019, and unit labor costs ranged between $0.09 to $0.10 per pound.

Table III-9
PET sheet: U.S. producers' employment related data, 2017-19

Item	Calendar year		
	2017	2018	2019
Production and related workers (PRWs) (number)	2,261	2,457	2,495
Total hours worked (1,000 hours)	4,453	4,571	4,604
Hours worked per PRW (hours)	1,969	1,860	1,845
Wages paid ($1,000)	102,466	115,554	120,453
Hourly wages (dollars per hour)	$23.01	$25.28	$26.16
Productivity (pounds per hour)	268.3	283.2	276.7
Unit labor costs (dollars per pound)	$0.09	$0.09	$0.09

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

Captive consumption

Section 771(7)(C)(iv) of the Act states that–[10]

> *If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that–*
>
> *(I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,*
>
> *(II) the domestic like product is the predominant material input in the production of that downstream article, and*
>
> *then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.*

[10] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Transfers and sales

As reported in table III-6 above, internal consumption accounted for between *** percent (2017) and *** percent (2019) of U.S. producers' U.S. shipments of PET sheet, by quantity.

First statutory criterion in captive consumption

The first requirement for application of the captive consumption provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. U.S. producers reported internal consumption of PET sheet for the production of thermoformed products, particularly food packaging. Other downstream products reported include: medical, retail, and cell phone packaging; face shields; industrial packaging; slit; laminate; and re-grind to produce future PET sheet. No U.S. producer, however, reported diverting PET sheet intended for internal consumption to the merchant market.

Second statutory criterion in captive consumption

The second criterion of the captive consumption provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captively produced. With respect to the downstream articles resulting from captive production, PET sheet reportedly comprises 61 to 75 percent of the finished cost of thermoformed food packaging products.[11]

[11] Two U.S. producers reported cost shares of 100 percent. These responses are not included in the range above, as the U.S. producers likely misunderstood the question. U.S. Producers' Questionnaire Responses for Question II-10.

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

U.S. importers

The Commission issued importer questionnaires to 72 firms believed to be importers of subject PET sheet, as well as to all U.S. producers of PET sheet.[1] Usable questionnaire responses were received from 15 companies,[2] representing 82.6 percent of U.S. imports from Korea, *** percent of U.S. imports from Oman,[3] 30.0 percent of imports from nonsubject sources, and 73.8 percent of total imports in 2018 under HTS code 3920.62.0090, a "basket" category.[4]

[1] The Commission issued questionnaires to those firms identified in the petition, 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 statistical reporting number 3920.62.0090 in 2019.

[2] During the final phase of the investigations, 19 firms certified they had not imported any PET sheet into the United States since January 1, 2017: *** An additional 12 companies that did not respond during the final phase of the investigations certified during the preliminary phase of the investigations that they had not imported any PET sheet into the United States since January 1, 2016: ***. One firm, ***, submitted a U.S. importer questionnaire that was not used because ***.

[3] OCTAL, Inc. is the official importer of record for 100 percent of imports from Oman. Conference transcript, p. 93 (Porter). Proprietary Customs data ***.

[4] The year 2018 was used to calculate import coverage because proprietary Customs data were not available for the full 2019 year. Import coverages were calculated by dividing 2018 import quantities reported in questionnaires by 2018 import quantities reported in proprietary Customs data. Proprietary Customs data were adjusted by removing import quantities for companies that certified they had not imported PET sheet in the final or preliminary phase questionnaires. Proprietary Customs data were also adjusted by *** imports from Korea in 2018, as *** reported *** 2018 imports of PET sheet from Korea in its questionnaire response, and *** 2018 imports of PET sheet from nonsubject sources with the quantities it reported in its questionnaire response, ***. *** Importers' Questionnaire response, question II-10.

Table IV-1 lists all responding U.S. importers of PET sheet from Korea, Oman, and other sources, their locations, and their shares of U.S. imports, in 2019.

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

Firm	Headquarters	Share of imports by source (percent)						
		Korea	Oman	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
3M Company	St. Paul, MN	***	***	***	***	***	***	***
Direct Pack	Sun Valley, CA	***	***	***	***	***	***	***
FormTex	Houston, TX	***	***	***	***	***	***	***
Hop	Lyndhurst, NJ	***	***	***	***	***	***	***
Intefilm	Beachwood, OH	***	***	***	***	***	***	***
JY Solutions	Fullerton, CA	***	***	***	***	***	***	***
Key Packaging	Sarasota, FL	***	***	***	***	***	***	***
Klockner	Gordonsville, VA	***	***	***	***	***	***	***
NU-B Inc.	Vaudreuil, QC	***	***	***	***	***	***	***
Octal	Salalah,	***	***	***	***	***	***	***
Plastech	Gimhae,	***	***	***	***	***	***	***
Printex	Islandia, NY	***	***	***	***	***	***	***
PVC Tech	Compton, CA	***	***	***	***	***	***	***
Royal Interpack	Riverside, CA	***	***	***	***	***	***	***
Tekni-Plex	Wayne, PA	***	***	***	***	***	***	***
All firms		***	***	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

U.S. imports

Table IV-2 presents data for U.S. imports of PET sheet from Korea, Oman, and all other sources.

Imports from Korea increased from 2017 to 2018 by *** percent in quantity and *** percent in value, then decreased from 2018 to 2019 by *** percent in quantity and *** percent in value, for an overall increase from 2017 to 2019 in quantity by *** percent and in value by *** percent.

Imports from Oman decreased from 2017 to 2018 by *** percent in quantity, but increased *** percent in value. The decrease in quantity coincides with OCTAL SAOC's six-week shutdown, from the end of May through mid-July of 2018, due to cyclone Mekunu, which

resulted in OCTAL SAOC not being able to supply its U.S. customers from July through September.[5] From 2018 to 2019, imports from Oman increased by *** percent in quantity and *** in value. Overall, imports from Oman increased from 2017 to 2019 by *** percent in quantity and *** in value.

Unit values for Korea, Oman, and nonsubject sources increased from 2017 to 2019, by ***, ***, and *** percent, respectively.

The ratio of imports from Oman, Korea, and nonsubject sources to U.S. production all increased from 2017 to 2019, by ***, ***, and *** percentage points, respectively.

Imports from Oman as a share of total imports decreased from 2017 to 2018 by *** percentage points in quantity and *** percentage points in value, while shares of imports from Korea and nonsubject sources increased in quantity (*** and *** percentage points) and value (*** and *** percentage points). From 2018 to 2019, the share of total imports from Oman increased by *** percentage points in quantity and *** percentage points in value, while shares of imports from Korea and nonsubject sources decreased in quantity (*** and *** percentage points, respectively) and value (*** and *** percentage points, respectively). Overall, imports from Oman, as a share of total imports, decreased from 2017 to 2019 by *** percentage points in quantity and *** percentage points in value, while the share of imports from Korea increased by *** percentage points in quantity and value.

[5] ***. OCTAL SAOZ FZC's U.S. Importers' Questionnaire response, question II-2.

Table IV-2
PET sheet: U.S. imports, by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
U.S. imports from.--			
Korea	***	20,856	19,181
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	41,748	44,371	50,966
All import sources	***	***	***
	Value (1,000 dollars)		
U.S. imports from.--			
Korea	***	14,310	13,179
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	30,726	33,730	40,571
All import sources	***	***	***
	Unit value (dollars per pound)		
U.S. imports from.--			
Korea	***	0.69	0.69
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	0.74	0.76	0.80
All import sources	***	***	***

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

Table IV-2 – Continued
PET sheet: U.S. imports, by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Share of quantity (percent)		
U.S. imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of value (percent)		
U.S. imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Ratio to U.S. production		
U.S. imports from.--			
Korea	***	1.6	1.5
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	3.5	3.4	4.0
All import sources	***	***	***

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

Figure IV-1
PET sheet: U.S. import quantities and average unit values, 2017-19

* * * * * * *

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

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[6] 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

[6] 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)).

such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[7] Imports from Korea accounted for *** percent, and imports from Oman accounted for *** percent of total imports of PET sheet by quantity during July 2018 through June 2019.

Table IV-3
PET sheet: U.S. imports in the twelve month period preceding the filing of the petition, July 2018 through June 2019

Item	July 2018 through June 2019	
	Quantity (1,000 pounds)	Share quantity (percent)
U.S. imports from.--		
Korea	***	***
Oman	***	***
Subject sources	***	***
Canada	***	***
All other sources	***	***
Nonsubject sources	***	***
All import sources	***	***

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

Cumulation considerations

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

[7] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Fungibility

Table IV-4 presents U.S. producers' and U.S. importers' U.S. shipments by type of PET in 2019.[8] U.S. producers reported U.S. shipments of PET sheet containing three of the four types of PET (virgin PET, recycled PET, and recycled D-PET), U.S. shipments of imports from Korea contained two of the four PET types (virgin PET and recycled PET),[9] U.S. shipments from Oman contained two of the four PET types (virgin D-PET and recycled D-PET), and U.S. shipments from nonsubject sources contained three of the four resin types (virgin PET, recycled PET, and recycled D-PET). Over *** percent of U.S. shipments of PET sheet produced using virgin and recycled PET were produced by U.S. producers.

[8] U.S. producers and U.S. importers were asked to classify their 2019 U.S. shipments by the following PET types: Virgin D-PET, all other virgin PET, recycled D-PET, and all other recycled PET. D-PET was defined as PET sheet produced directly from PET melt.

[9] The majority of PET sheet imports from Korea (*** percent) were made with recycled PET. ***. *** foreign producer questionnaire response, question II-10.

Table IV-4
PET sheet: U.S. producers' and U.S. importers' U.S. shipments by type of PET, 2019

Item	Virgin D-PET	Virgin other PET	Recycled D-PET	Recycled other PET	Total, all types
	Quantity (1,000 pounds)				
U.S. producers	***	***	***	696,458	1,249,904
U.S. shipments of imports from.--Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	49,697
All import sources	***	***	***	***	***
U.S. producers and U.S. importers	***	***	***	***	***
	Share across (percent)				
U.S. producers	***	***	***	55.7	***
U.S. shipments of imports from.--Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers	***	***	***	***	***
	Share down (percent)				
U.S. producers	***	***	***	***	***
U.S. shipments of imports from.--Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
U.S. producers and U.S. importers	***	***	***	***	***

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

Figure IV-2
PET sheet: U.S. producers' and U.S. importers' U.S. shipments by type of PET, 2019

* * * * * * *

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

Eleven purchasers reported imports or purchases of PET sheet from both the U.S. and Oman, three purchasers reported imports or purchases from both the U.S. and Korea, and two purchasers reported imports or purchases from both Korea and Oman.

Geographical markets

Table IV-5 presents data on U.S. imports of PET sheet by border of entry from January to November of 2019.[10] U.S. imports from both subject and nonsubject countries entered the United States at all U.S. Custom districts. U.S. Customs districts located in the East[11] accounted for, by quantity, the largest share of imports of PET sheet from subject countries, at ***

[10] Data were derived from proprietary Customs data after removing imports from firms that certified during the preliminary and/or final phase of the investigations that they do not import PET sheet. Proprietary Customs data were not available for December 2019.

[11] The "East" includes the following Customs entry districts: Baltimore, Maryland; Boston, Massachusetts; Buffalo, New York; Charleston, South Carolina; Charlotte, North Carolina; New York, New York; Norfolk, Virginia; Ogdensburg, New York; Philadelphia, Pennsylvania; Portland, Maine; San Juan, Puerto Rico; Savannah, Georgia; St. Albans, Vermont; and Washington, District of Columbia.

percent. The East also accounted for, by quantity, the largest share of imports of PET sheet from Oman, at *** percent, while the West[12] accounted for, by quantity, the largest share of imports of PET sheet from Korea, at *** percent.

Table IV-5
PET sheet: U.S. imports by border of entry, 2019

Item	Border of entry				
	East	North	South	West	All borders
	Quantity (1,000 pounds)				
U.S. imports from.--					
Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Share across (percent)				
U.S. imports from.--					
Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Share down (percent)				
U.S. imports from.--					
Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Compiled from proprietary Customs records using statistical reporting number 3920.62.0090 and excluding data for importers that submitted "no" questionnaire responses in the final and/or preliminary phase questionnaires. Does not include December 2019 data. Accessed June 3, 2020.

[12] The "West" includes the following Customs entry districts: Columbia-Snake, Oregon; Honolulu, Hawaii; Los Angeles, California; Nogales, Arizona; San Diego, California; San Francisco, California; and Seattle, Washington.

Presence in the market

Table IV-6 and figures IV-3 and IV-4 present monthly import statistics for PET sheet products from January 2017 to November 2019. Imports of PET sheet from Korea and Oman entered the United States in every month over the period.

Table IV-6
PET sheet: U.S. imports by month, January 2017 through November 2019

U.S. imports	Korea	Oman	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
	Quantity (1,000 pounds)						
2017:							
January	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***
2018:							
January	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***
December	***	***	***	***	***	***	***
2019:							
January	***	***	***	***	***	***	***
February	***	***	***	***	***	***	***
March	***	***	***	***	***	***	***
April	***	***	***	***	***	***	***
May	***	***	***	***	***	***	***
June	***	***	***	***	***	***	***
July	***	***	***	***	***	***	***
August	***	***	***	***	***	***	***
September	***	***	***	***	***	***	***
October	***	***	***	***	***	***	***
November	***	***	***	***	***	***	***

Source: Compiled from proprietary Customs records using statistical reporting number 3920.62.0090 and excluding data for importers that submitted "no" questionnaire responses in the final and/or preliminary phase questionnaires. Does not include December 2019 data. Accessed June 3, 2020.

Figure IV-3
PET sheet: U.S. imports, by subject country, by month, January 2017 through November 2019

* * * * * * *

Source: Compiled from proprietary Customs records using statistical reporting number 3920.62.0090 and excluding data for importers that submitted "no" questionnaire responses in the final and/or preliminary phase questionnaires. Does not include December 2019 data. Accessed June 3, 2020.

Figure IV-4
PET sheet: U.S. imports, subject and nonsubject, by month, January 2017 through November 2019

* * * * * * *

Source: Compiled from proprietary Customs records using statistical reporting number 3920.62.0090 and excluding data for importers that submitted "no" questionnaire responses in the final and/or preliminary phase questionnaires. Does not include December 2019 data. Accessed June 3, 2020.

Apparent U.S. consumption and U.S. market shares for total market

Table IV-7, table IV-8, and figure IV-5 present total market data on apparent U.S. consumption and U.S. market shares for PET sheet. From 2017 to 2019, U.S. shipments of PET sheet from domestic sources, subject sources, and nonsubject sources all increased, resulting in an increase in apparent consumption by *** percent in quantity, and *** percent in value.

U.S. importers' U.S. shipments from subject sources increased from 2017 to 2019 by *** percent in quantity and *** percent in value, with imports from Korea increasing by *** percent in quantity and *** percent in value, and imports from Oman increasing by *** percent in quantity and *** percent in value.

U.S. importers' U.S. shipments from nonsubject sources also increased from 2017 to 2019, by 26.1 percent in quantity and 41.5 percent in value. U.S. shipments of imports from Canada largely drove this increase, as such shipments increased by *** percent in quantity and *** percent in value, while U.S. shipments of imports from other nonsubject sources decreased in quantity by *** percent and increased in value by *** percent.

U.S. producers' U.S. shipments increased by 6.7 percent in quantity and 7.7 percent in value from 2017 to 2019.

Table IV-7
PET sheet: Apparent U.S. consumption, total market, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
U.S. producers' U.S. shipments	1,170,962	1,279,300	1,249,904
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	39,423	44,697	49,697
All import sources	***	***	***
Apparent U.S. consumption	***	***	***
	Value (1,000 dollars)		
U.S. producers' U.S. shipments	1,025,862	1,150,878	1,104,651
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	28,623	34,479	40,491
All import sources	***	***	***
Apparent U.S. consumption	***	***	***

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

Table IV-8 and figure IV-5 present total market shares for PET sheet. From 2017 to 2019, total market share of U.S. importers' U.S. shipments increased, while U.S. producers' U.S. shipments decreased, by *** percentage points in quantity and *** percentage points in value. From 2017 to 2019, total market share of U.S. shipments from subject sources increased by *** percentage points in quantity and *** percentage points in value, while total market share of U.S. shipments from nonsubject sources increased by *** percentage points in quantity and *** percentage points in value.

Table IV-8
PET sheet: Market shares, total market, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Apparent U.S. consumption	***	***	***
	Share of quantity (percent)		
U.S. producers' U.S. shipments	***	***	***
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Value (1,000 dollars)		
Apparent U.S. consumption	***	***	***
	Share of value (percent)		
U.S. producers' U.S. shipments	***	***	***
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

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

Figure IV-5
PET sheet: Apparent U.S. consumption, total market, 2017-19

* * * * * * *

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

Apparent U.S. consumption and U.S. market shares for merchant market

Table IV-9, table IV-10, and figure IV-6 present merchant market data on apparent U.S. consumption and U.S. market shares for PET sheet. From 2017 to 2019, U.S. importers' U.S. shipments of PET sheet increased by *** percent in quantity and *** percent in value, while U.S. producers' U.S. commercial shipments decreased by *** percent in quantity and *** percent in value, for an overall increase in apparent consumption by *** percent in quantity, and *** percent in value.

Table IV-9
PET sheet: Apparent U.S. consumption, merchant market, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
U.S. producers' U.S. commercial shipments	315,048	321,346	282,955
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	39,423	44,697	49,697
All import sources	***	***	***
Apparent U.S. consumption	***	***	***
	Value (1,000 dollars)		
U.S. producers' U.S. commercial shipments	342,019	369,193	317,427
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	28,623	34,479	40,491
All import sources	***	***	***
Apparent U.S. consumption	***	***	***

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

Table IV-10 and figure IV-6 present merchant market shares for PET sheet. From 2017 to 2019, merchant market share of U.S. importers' U.S. shipments increased, while U.S. producers' U.S. shipments decreased, by *** percentage points in quantity and *** percentage points in value. From 2017 to 2019, merchant market share of U.S. shipments from subject sources increased by *** percentage points in quantity and *** percentage points in value, while total market share of U.S. shipments from nonsubject sources increased by *** percentage points in quantity and *** percentage points in value.

Table IV-10
PET sheet: Market shares, merchant market, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Apparent U.S. consumption	***	***	***
	Share of quantity (percent)		
U.S. producers' U.S. commercial shipments	***	***	***
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Value (1,000 dollars)		
Apparent U.S. consumption	***	***	***
	Share of value (percent)		
U.S. producers' U.S. commercial shipments	***	***	***
U.S. shipments of imports from.--			
Korea	***	***	***
Oman	***	***	***
Subject sources	***	***	***
Canada	***	***	***
All other sources	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

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

Figure IV-6
PET sheet: Apparent U.S. consumption, merchant market, 2017-19

* * * * * * *

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

Part V: Pricing data

Factors affecting prices

Raw material costs

The main input for PET sheet in the United States is virgin or recycled PET resin chips. Figure V-1 shows Chemical Data's index of the price of PET resin from January 2017 to July 2019. PET resin costs increased irregularly between January 2017 and September 2018, after which it declined irregularly to July 2019.[1]

Figure V-1
PET resin: Market price of bottle grade dollars per pound, by month, January 2017-July 2019

* * * * * * *

Source: Monthly Petrochemical and Plastics Analysis, June 2016-July 2019 Chemical Data, Respondent OCTAL's post conference brief, exhibit 7.

[1] Respondents provided these data during the preliminary phase of these investigations through July 2019.

Transportation costs to the U.S. market

Transportation costs for PET sheet shipped from subject countries to the United States averaged 7.3 percent for Korea and 10.6 percent for Oman during 2019. These estimates were derived from official import data and represent the transportation and other charges on imports.[2]

U.S. inland transportation costs

Ten of 15 responding U.S. producers and all 6 responding importers reported that they typically arrange transportation to their customers. Most U.S. producers reported that their U.S. inland transportation costs ranged from 1 to 7 percent while most importers reported costs of 3 to 15 percent.

Pricing practices[3]

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists. As presented in table V-1, U.S. producers and most importers sell primarily based on transaction-by-transaction negotiations.[4]

[2] 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 3920.62.0090. This HTS includes out of scope material.

[3] Nine producers and six importers did not sell PET sheet, but rather internally consumed all the PET sheet they produced or imported. Their responses on how they sold PET sheet are not included in information in this section on selling/pricing methods because they did not sell or price PET sheet (questions IV-2 through IV-10 of the producer questionnaire and III-2- through III-10 of the importer questionnaire).

[4] The producer that reported using another method of sale reported that it sold at prevailing prices.

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

Method	U.S. producers	Importers
Transaction-by-transaction	13	8
Contract	5	3
Set price list	3	1
Other	1	---
Responding firms	15	8

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 sold most (57 percent) of their PET sheet in the spot market, while importers sold most (*** percent) of their product using long-term contracts (table V-2).[5] Respondent OCTAL reported selling using long-term contracts that contain a pricing formula indexed to published PET resin prices.[6] It also stated that virtually all of its 2018 shipments were to a few customers with pricing based on the price formulas. Inline reported that in 2016 it agreed to a contract with OCTAL that dictated the price in 2017, 2018, and 2019.[7]

Table V-2
PET sheet: 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	32.4	***
Annual contracts	6.5	***
Short-term contracts	3.9	***
Spot sales	57.1	***
Total	100.0	100.0

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

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

Most contract sales are under long-term contracts.[8] [9] Four U.S. producers reported the characteristics of their long-term contracts. All four reported price renegotiations are not

[5] ***.

[6] Hearing transcript, pp. 194 (Barenberg).

[7] Hearing transcript, p. 132, (Orkisz).

[8] *** producers reported some characteristics of their short-term contracts. Their ***. *** reported characteristics of their annual contracts. ***.

[9] Two importers reported contract provisions of their short term contracts, ***. One importer reported the characteristics of its annual contracts, which ***.

allowed during the contract, and three reported prices were indexed to raw material costs. One importer (***) reported long term contracts. Its contracts ***. Indices used included Andex published by Chemical Data Inc. (CDI), Information Handling Services, and CHMI. OCTAL reported using the CDI index.[10]

Two purchasers reported that they purchase PET sheet daily, seven purchase weekly, and four purchase monthly. Twelve of 17 responding purchasers reported that their purchasing frequency had not changed since 2017.[11] Most purchasers (14 of 17) contact one to four suppliers before making a purchase.

Sales terms and discounts

U.S. producers and importers typically quote prices on a delivered basis. Most producers (8 of 15 responding) and importers (5 of 8) reported no discount policy. Seven producers reported quantity discounts, *** also offered total volume discounts. *** importers offered both quantity and total volume discounts.

Price leadership

Five purchasers reported price leaders; three of these reported that Klockner, and two reported that OCTAL, were price leaders. Three purchasers reported Klockner was the first firm to increase prices. Purchasers reported that OCTAL sets the minimum price and produces the most PET sheet.

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 PET sheet products shipped to unrelated U.S. customers during 2017-19.

[10] Hearing transcript, p. 194 (Barenberg).

[11] Of the five purchasers reporting changes in frequency of purchases, two reported increased purchases, two reported decreased purchases, and one reported its purchases changed with demand.

Product 1.-- PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 2.-- PET sheet, single layer, thickness of 0.031”-0.045”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 3.-- PET sheet, single layer, thickness of 0.012”-0.030”, black, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Product 4.— PET sheet, three-layer coextruded, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

Firms were instructed to exclude (1) PET sheet produced from PET-G inputs, which is defined as PET produced by replacing a portion of the raw material input monoethylene glycol (MEG) with one of five glycol modifiers: cyclohexanedimethanol (CHDM), diethylene glycol (DEG), neopentyl glycol (NPG), isosorbide, or spiro glycol; and (2) crystalline PET sheet.

Nine U.S. producers and five importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[12] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers’ shipments of PET sheet, *** percent of U.S. shipments of subject imports from Korea, and *** percent of U.S. shipments of subject imports from Oman in 2019.[13]

Price data for products 1-4 are presented in tables V-3 to V-6 and figures V-2 to V-5. Nonsubject country (Canadian) prices are presented in Appendix D. Price data excluding those reported by OCTAL Extrusion are presented in Appendix E.

[12] 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.

[13] ***.

Table V-3
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017:								
Jan.-Mar.	0.71	20,439	***	***	***	***	***	***
Apr.-June	0.70	25,557	***	***	***	***	***	***
July-Sept.	0.70	22,742	***	***	***	***	***	***
Oct.-Dec.	0.75	20,409	***	***	***	***	***	***
2018:								
Jan.-Mar.	0.78	19,672	***	***	***	***	***	***
Apr.-June	0.82	21,813	***	***	***	***	***	***
July-Sept.	0.89	23,545	***	***	***	***	***	***
Oct.-Dec.	0.83	19,337	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.73	17,769	***	***	***	***	***	***
Apr.-June	0.73	22,060	***	***	***	***	***	***
July-Sept.	0.72	22,911	***	***	***	***	***	***
Oct.-Dec.	0.69	22,686	***	***	***	***	***	***

Note: Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table V-4
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017:								
Jan.-Mar.	0.73	5,808	***	***	***	***	***	***
Apr.-June	0.74	7,454	***	***	***	***	***	***
July-Sept.	0.74	5,528	***	***	***	***	***	***
Oct.-Dec.	0.74	5,733	***	***	***	***	***	***
2018:								
Jan.-Mar.	0.80	6,951	***	***	***	***	***	***
Apr.-June	0.82	7,918	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	0.89	6,452	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.79	7,259	***	***	***	***	***	***
Apr.-June	0.79	5,601	***	***	***	***	***	***
July-Sept.	0.78	5,582	***	***	***	***	***	***
Oct.-Dec.	0.76	4,366	***	***	***	***	***	***

Note: Product 2: PET sheet, single layer, thickness of 0.031”-0.045”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table V-5
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017:								
Jan.-Mar.	0.71	2,659	***	***	***	***	***	***
Apr.-June	0.73	2,862	***	***	***	***	***	***
July-Sept.	0.71	3,717	***	***	***	***	***	***
Oct.-Dec.	0.77	4,156	***	***	***	***	***	***
2018:								
Jan.-Mar.	0.77	2,666	***	***	***	***	***	***
Apr.-June	0.76	2,299	***	***	***	***	***	***
July-Sept.	0.76	3,460	***	***	***	***	***	***
Oct.-Dec.	0.78	2,332	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.70	2,228	***	***	***	***	***	***
Apr.-June	0.83	2,437	***	***	***	***	***	***
July-Sept.	0.77	2,898	***	***	***	***	***	***
Oct.-Dec.	0.72	2,944	***	***	***	***	***	***

Note: Product 3: PET sheet, single layer, thickness of 0.012”-0.030”, black, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table V-6
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***

Note: Product 4: PET sheet, three-layer coextruded, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure V-2
PET sheet: Weighted-average prices and quantities of domestic and imported product 1, by quarter, 2017-19

* * * * * * *

Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure V-3
PET sheet: Weighted-average prices and quantities of domestic and imported product 2, by quarter, 2017-19

* * * * * * *

Product 2: PET sheet, single layer, thickness of 0.031”-0.045”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure V-4
PET sheet: Weighted-average prices and quantities of domestic and imported product 3, by quarter, 2017-19

* * * * * * *

Product 3: PET sheet, single layer, thickness of 0.012”-0.030”, black, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure V-5
PET sheet: Weighted-average prices and quantities of domestic and imported product 4, by quarter, 2017-19

* * * * * * *

Product 4: PET sheet, three-layer coextruded, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating

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

Price trends

In general, prices increased or decreased slightly during 2017-19. Table V-7 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent during 2017-19, while domestic prices decreased *** percent for pricing product 1. Korea import price increases were *** and *** percent while Korean import prices decreased by *** percent for pricing product 1. Oman import prices increases ranged from *** to *** percent, but for pricing product 3, Oman prices decreased by *** percent.

Table V-7
PET sheet: Summary of weighted-average f.o.b. prices for products 1-4 from the United States and Korea

Item	Number of quarters	Low price (per pound)	High price (per pound)	Change in price (percent)
Product 1				
United States	12	***	***	***
Korea	8	***	***	***
Oman	12	***	***	***
Product 2				
United States	12	***	***	***
Korea	2	***	***	***
Oman	12	***	***	***
Product 3				
United States	12	***	***	***
Korea	6	***	***	***
Oman	12	***	***	***
Product 4				
United States	12	***	***	***
Korea	12	***	***	***
Oman	12	***	***	***

Note: Percentage change from the first quarter in which data were available to the last quarter in which price data were available. Changes are not reported for Korean product 2 because price data were only available for two quarters, price was unchanged.

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

Price comparisons

As shown in table V-8, prices for product imported from Korea were below those for U.S.-produced product in all 28 instances (*** pounds); margins of underselling ranged from *** to *** percent. Prices for product imported from Oman were below those for U.S. produced product in 45 of 48 instances (*** pounds); margins of underselling ranged from *** to *** percent. In the remaining three instances (*** pounds), prices for product from Oman were between *** and *** percent above prices for the domestic product.

Table V-8
PET sheet: Instances of underselling/overselling and the range and average of margins, by product and country, 2017-19

Source	Underselling				
	Number of quarters	Quantity (1,000 pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	19	***	***	***	***
Product 2	14	***	***	***	***
Product 3	16	***	***	***	***
Product 4	24	***	***	***	***
Total, underselling	73	***	14.7	***	***
Korea	28	***	***	***	***
Oman	45	***	***	***	***
Total, underselling	73	***	14.7	***	***
Source	**(Overselling)**				
	Number of quarters	**Quantity (1,000 pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	1	***	***	***	***
Product 3	2	***	***	***	***
Total, overselling	3	***	***	***	***
Oman	3	***	***	***	***
Total, overselling	3	***	***	***	***

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.

Respondent OCTAL stated that its prices are lower than U.S. prices for a number of reasons. First, OCTAL SAOC does not sell small orders, product with short lead times, special needs products, or products for short product runs.[14] OCTAL SAOC instead concentrates on a small number of SKUs and large volume sales.[15] Respondent argues that these limitations result in lower overhead and sales of large quantities and thus reduce the per unit price of PET sheet from Oman.[16]

U.S. producers sometimes also set prices based on the size of the order. For example, *** provided a ***

[14] Hearing transcript, pp. 176-178 (Durling, Barenberg, Orkisz, McGuire, Porter).
[15] Hearing transcript, p. 789 (Porter).
[16] Hearing transcript, pp. 210-211 (Barenberg).

***.[17]

Lost sales and lost revenue

In the preliminary phase of these investigations, the Commission requested that U.S. producers of PET sheet report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of PET sheet from Korea and Oman during January 2016-March 2019. Three U.S. producers submitted lost sales and lost revenue allegations. The three responding U.S. producers identified 27 firms[18] with which they lost sales (21 were of lost sales to Oman, 3 were of lost sales to Oman and Korea, and 3 were of lost sales to Korea). There were no lost revenue allegations. Most allegations were made for 2018 only. The remaining allegations were for multiple years, from 2016 to 2019. Fifteen were for RFQs (request for quotes) and 12 were for individual sales.

In the final phase of these investigations, of the 19 responding U.S. producers, 11 reported that they had to either reduce prices or roll back announced price increases, and 10 reported that they had lost sales.[19]

Staff contacted 76 purchasers and received responses from 17 purchasers.[20] Responding purchasers (as well as five purchasers that responded in the preliminary and not in the final) reported purchasing *** pounds of PET sheet during 2017-19[21] (table V-9).

[17] Petitioners' posthearing brief, ex, 4, attachment 2.

[18] The petition included Mexico as well as Korea and Oman. Mexico was eliminated in the preliminary phase of these investigations. There was one lost sale allegation against Mexico. This allegation is not included in the total number of allegations.

[19] Only responses of U.S. producers that sold PET sheet are included.

[20] Five purchasers (***) submitted lost sales lost revenue survey responses in the preliminary phase but did not submit purchaser questionnaire responses in the final phase.

[21] Responses for firms that responded in the preliminary phase and not in the final phase cover the period 2016-18 not 2017-2019.

Table V-9
PET sheet: Purchasers' reported purchases and imports

Purchaser	Purchases in 2017-2019 (1,000 pounds)			Change in domestic share (pp, 2017-19)	Change in subject country share (pp, 2017-19)
	Domestic	Subject	All other		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

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.
Note: Purchasers *** are U.S. producers that also purchased PET sheet during 2017-19.
Note: Responses of *** are for purchases in 2016-18, because they responded in the preliminary phase only.

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

Of the 22 responding purchasers, none reported that, since 2017 (or since 2016 if they only responded in the preliminary phase), they had purchased imported PET sheet from Korea instead of U.S.-produced product[22] and 7 reported they had purchased PET sheet from Oman instead of U.S.-produced product. One purchaser, ***, reported that Korean prices were lower than U.S.-produced PET sheet, but that price was not a primary reason for purchasing Korean product. Six purchasers reported that the price of PET sheet produced in Oman was lower priced than domestically produced PET

[22] ***. ***.

sheet, and three of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Three purchasers estimated the quantity of PET sheet from Korea and Oman purchased instead of domestic product; quantities ranged from *** pounds to *** pounds (table V-10). Table V-10 responses reflect only purchases from Oman because no purchaser reported purchasing Korean product instead of U.S. PET sheet. Table V-11 reports the responses by country. Purchasers identified the superior quality of D-PET as the main non-price reason for purchasing imported rather than U.S.-produced product.[23]

[23] ***. Advantages of using OCTAL SAOC's PET sheet ***. ***.

Table V-10
PET sheet: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic	Imports priced lower	If purchased imports instead of domestic, was price a primary reason		
			Yes/ No	If Yes, quantity (1,000 pounds)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued on next page.

Table V-10--Continued
PET sheet: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic	Imports priced lower	If purchased imports instead of domestic, was price a primary reason		
			Yes/ No	If Yes, quantity (1,000 pounds)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--10; No—12	Yes--8; No—1	Yes--5; No—4	***	

Note: NR is no response.
Note: Purchasers *** are U.S. producers that also purchased PET sheet during 2017-19.
Note: ***.

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

Table V-11
PET sheet: Purchasers' responses to purchasing subject instead of domestic, by country

Source	Count of purchasers reporting subject instead of domestic	Count of purchasers reported that imports were priced lower	Count of purchasers reporting that price was a primary reason for shift	Quantity subject purchased (1,000 pounds)
Korea	---	1	---	---
Oman	10	8	5	***

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

One of the 22 responding purchasers reported that U.S. producers had reduced prices in order to compete with lower-priced imports from Oman (table V-12). Responses by subject country are in table V-13.

In addition to these lost sales lost revenue responses, some purchasers provided additional information on why they preferred D-PET from Oman over A-PET. *** reported that the use of D-PET improves: the visual clarity of the containers; the functional features imparted by the specialized shape features of the containers; the "eco-friendliness" (i.e., minimal environmental impact) of the containers; and the strength and durability of the containers. *** reported that the "IV" (intrinsic viscosity) value of a PET material results from the size of the molecules in the plastic and decreases with every melt-cool cycle to which the material is subjected. *** reported that a higher IV value improves PET's strength, clarity, formability, shatter/crack resistance, chemical stability, and value of scrap. *** reported that D-PET has a higher IV value than that of any A-PET or R-PET on the U.S. market. In addition, *** reported that OCTAL's rolls are consistent from roll to roll in gauge ban, IV, clarity, sheet width, and shape of roll. *** also reported that OCTAL has the capacity to fill unexpectedly large orders when they arise. ***.

Table V-12
PET sheet: Purchasers' responses to U.S. producer price reductions, by firm

Purchaser	Producers reduced price	If produced reduced prices: Estimated U.S. price reduction (percent)	Additional information, if available
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total / average	Yes--1; No—7	***	

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

Table V-13
PET sheet: Purchasers' responses to if U.S. producers reduced priced to compete with subject imports)

Country	Yes	No	Don't know
Korea	0	6	14
Oman	1	7	12

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

Part VI: Financial experience of U.S. producers

Background

Twenty two U.S. producers provided usable financial data on their operations on PET sheet.[1] Most of the reporting firms have a fiscal year that ends on December 31 and reported on the basis of GAAP.[2] Net sales consisted of internal consumption, commercial sales, and transfers to related firms which accounted for *** percent, *** percent, and *** percent of total net sales quantity in 2019, respectively. *** accounted for the largest total net sales quantity in 2019 (*** percent), followed by *** (*** percent), *** (*** percent, *** (***, *** (*** percent) and the remaining U.S. producers ranged from *** percent (***) to *** percent (***) of total net sales quantity in 2019.

Staff conducted a verification of ***'s U.S. producer questionnaire. The verification adjustments were incorporated into this report. ***.[3]

Operations on PET SHEET

Table VI-1 presents aggregated data on U.S. producers' total market operations in relation to PET sheet over the period examined, while table VI-2 shows the changes in average unit values of select financial indicators for total market operations. Table VI-3 presents selected company-specific financial data. In Appendix F, tables F-1, F-2, and F-3 present

[1] ***. U.S. producers' questionnaire responses of ***, question II-7. ***.

[2] The firms with fiscal year ends other than December 31 are ***. *** used tax, and *** used International Financial Reporting Standards as their accounting bases.

[3] Staff verification report, ***, July 20, 2020.

financial results specific to commercial sales (merchant market).[4] In Appendix G, table G-1 presents financial results of U.S. producers' total market operations excluding *** and G-2 presents financial results of U.S. producers' merchant market operations excluding ***.

[4] ***. Email from ***, June 12, 2020.

Table VI-1
PET sheet: Results of operations of U.S. producers, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	1,138,479	1,222,573	1,193,184
	Value (1,000 dollars)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	1,009,625	1,118,262	1,076,551
Cost of goods sold.-- Raw materials	604,136	733,459	672,324
Direct labor	67,555	74,259	68,102
Other factory costs	152,868	157,555	164,384
Total COGS	824,559	965,273	904,810
Gross profit	185,065	152,989	171,741
SG&A expense	52,530	55,782	61,740
Operating income or (loss)	132,535	97,207	110,001
Other expenses/(income), net	6,980	10,344	10,507
Net income or (loss)	125,555	86,863	99,494
Depreciation/amortization	26,823	31,635	35,392
Cash flow	152,377	118,498	134,886
	Ratio to net sales (percent)		
Cost of goods sold.-- Raw materials	59.8	65.6	62.5
Direct labor	6.7	6.6	6.3
Other factory costs	15.1	14.1	15.3
Average COGS	81.7	86.3	84.0
Gross profit	18.3	13.7	16.0
SG&A expense	5.2	5.0	5.7
Operating income or (loss)	13.1	8.7	10.2
Net income or (loss)	12.4	7.8	9.2

Table continued on next page.

Table VI-1—Continued
PET sheet: Results of operations of U.S. producers, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Ratio to total COGS (percent)		
Cost of goods sold.-- Raw materials	73.3	76.0	74.3
Direct labor	8.2	7.7	7.5
Other factory costs	18.5	16.3	18.2
Average COGS	100.0	100.0	100.0
	Unit value (dollars per pound)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	0.89	0.91	0.90
Cost of goods sold.-- Raw materials	0.53	0.60	0.56
Direct labor	0.06	0.06	0.06
Other factory costs	0.13	0.13	0.14
Average COGS	0.72	0.79	0.76
Gross profit	0.16	0.13	0.14
SG&A expense	0.05	0.05	0.05
Operating income or (loss)	0.12	0.08	0.09
Net income or (loss)	0.11	0.07	0.08
	Number of firms reporting		
Operating losses	10	11	9
Net losses	10	11	11
Data	20	21	22

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

Table VI-2
PET sheet: Changes in AUVs, between fiscal years

Item	Between fiscal years		
	2017-19	2017-18	2018-19
	Change in AUVs (percent)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	▲1.7	▲3.1	▼(1.4)
Cost of goods sold.-- Raw materials	▲6.2	▲13.1	▼(6.1)
Direct labor	▼(3.8)	▲2.4	▼(6.0)
Other factory costs	▲2.6	▼(4.0)	▲6.9
Average COGS	▲4.7	▲9.0	▼(4.0)
	Change in AUVs (dollars per pound)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	▲0.02	▲0.03	▼(0.01)
Cost of goods sold.-- Raw materials	▲0.03	▲0.07	▼(0.04)
Direct labor	▼(0.002)	▲0.001	▼(0.004)
Other factory costs	▲0.003	▼(0.01)	▲0.01
Average COGS	▲0.03	▲0.07	▼(0.03)
Gross profit	▼(0.02)	▼(0.04)	▲0.02
SG&A expense	▲0.01	▼(0.001)	▲0.01
Operating income or (loss)	▼(0.02)	▼(0.04)	▲0.01
Net income or (loss)	▼(0.03)	▼(0.04)	▲0.01

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

Table VI-3
PET sheet: Select results of operations of U.S. producers, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Total net sales (1,000 pounds)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	1,138,479	1,222,573	1,193,184
	Total net sales (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	1,009,625	1,118,262	1,076,551
	Cost of goods sold (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	824,559	965,273	904,810
	Gross profit or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	185,065	152,989	171,741

Table continued on next page.

Table VI-3—Continued
PET sheet: Select results of operations of U.S. producers, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	SG&A expenses (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	52,530	55,782	61,740
	Operating income or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	132,535	97,207	110,001
	Net income or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	125,555	86,863	99,494
	COGS to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	81.7	86.3	84.0

Table continued on next page.

Table VI-3—Continued
PET sheet: Select results of operations of U.S. producers, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Gross profit or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	18.3	13.7	16.0
	SG&A expense to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	5.2	5.0	5.7
	Operating income or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	13.1	8.7	10.2
	Net income or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	12.4	7.8	9.2

Table continued on next page.

Table VI-3—Continued
PET sheet: Select results of operations of U.S. producers, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit net sales value (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.89	0.91	0.90
	Unit raw materials (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.53	0.60	0.56
	Unit direct labor (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.06	0.06	0.06
	Unit other factory costs (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.13	0.13	0.14
	Unit COGS (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.72	0.79	0.76

Table continued on next page.

Table VI-3—Continued
PET sheet: Select results of operations of U.S. producers, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit gross profit or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.16	0.13	0.14
	Unit SG&A expenses (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.05	0.05	0.05
	Unit operating income or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.12	0.08	0.09
	Unit net income or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All other firms	***	***	***
All firms	0.11	0.07	0.08

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

Net sales

The quantity and value of net sales for total market operations irregularly increased from 2017 to 2019.[5] In contrast to internal consumption which represents the majority of net sales, the quantity and value reported for commercial sales irregularly declined from 2017 to

[5] The quantity and value of net sales for merchant market operations declined irregularly from 2017 to 2019 (table F-1 in Appendix F).

2019. The quantity of transfers to related firms ("transfers") irregularly increased while the value of transfers irregularly declined from 2017 to 2019. Among the largest producers ***.[6] For the industry as a whole, the average per pound net sales value increased irregularly from $0.89 in 2017 to $0.90 in 2019. Average per pound net sales value for transfers (ranging from $*** to $*** per pound) are notably higher than commercial sales and internal consumption. ***. The largest producers reported mixed directional trends in terms of unit net sales value, as shown in table VI-3 and ***.[7]

Cost of goods sold and gross profit or (loss)

The largest component of cost of goods sold ("COGS") is raw materials, accounting for between 73.3 percent (2017) and 76.0 percent (2018) of total COGS. Raw materials consist of virgin and recycled PET chips/flakes, additives, coatings, and other raw materials such as ***. Table VI-1 shows that the industry's total raw material costs and per pound raw material costs irregularly increased from 2017 to 2019.[8] As seen in table VI-3, ***.[9] *** is the only U.S. producer which purchased recycled PET flakes of Omani origin.[10] Table VI-4 presents details on raw material inputs as a share of total raw material costs for responding U.S. producers in 2019.

[6] ***. Email from ***, June 12, 2020.

[7] See footnote 4 in this section regarding ***'s unit sales values.

[8] For merchant market operations, total raw material costs and per pound raw material costs declined irregularly from 2017 to 2019 (table F-1 in Appendix F).

[9] See footnote 4 in this section regarding ***'s raw material costs.

[10] ***. Email from ***, August 3, 2020.

Table VI-4
PET sheet: Raw material costs, fiscal year 2019

Raw materials	Fiscal year 2019		
	Value (1,000 dollars)	Unit value (dollars per pound)	Share of value (percent)
Virgin: Domestic	***	***	***
Virgin: Imported	***	***	***
Virgin PET chips / pellets	***	***	***
Recycled: Domestic	***	***	***
Recycled: Imported	***	***	***
Recycled PET chips / pellets	***	***	***
Additives / coatings	***	***	***
Other material inputs	***	***	***
Total, raw materials	672,324	0.56	100.0

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

The second largest component of COGS is other factory costs, which accounted for between 16.3 percent (2018) and 18.5 percent (2017) of total COGS. Table VI-1 shows that the industry's total other factory costs increased although per pound other factory costs moved within a narrow range from 2017 to 2019.[11] As shown in VI-3, ***.[12]

Direct labor is the smallest component of COGS, representing between 7.5 percent (2019) and 8.2 percent (2017) of total COGS. The industry's total direct labor costs irregularly increased and per pound direct labor costs remained unchanged from 2017 to 2019.[13]

For the industry as a whole, total COGS, per pound COGS, and COGS as a ratio to net sales irregularly increased from 2017 to 2019 largely due to increasing raw material costs.

Gross profit irregularly declined from $185.1 million in 2017 to $171.7 million in 2019 because the increase in total COGS was greater than the increase in total net sales value. The gross profit margin (gross profit as a ratio to net sales) also irregularly declined from 18.3 percent in 2017 to 16.0 percent in 2019.[14]

[11] For merchant market operations, total other factory costs and per pound other factory costs increased from 2017 to 2019 (table F-1 in Appendix F).

[12] ***. Email from ***, June 12, 2020.

[13] For merchant market operations, total direct labor costs and per pound direct labor costs declined from 2017 to 2019 (table F-1 in Appendix F).

[14] For merchant market operations, total gross profit and gross profit margin irregularly increased from 2017 to 2019 because the decline in total COGS was greater than the decline in total net sales value (table F-1 in Appendix F).

SG&A expenses and operating income

Total selling, general, and administrative ("SG&A") expenses and SG&A expenses as a ratio to net sales increased overall from 2017 to 2019.[15] The largest producers reported mixed directional trends in terms of SG&A expenses as a ratio to net sales, as shown in table VI-3.[16]

On an overall basis and similar to the trend in gross profit, operating income irregularly declined from $132.5 million in 2017 to $110.0 million in 2019. The operating income margin (operating income as a ratio to net sales) irregularly declined from 13.1 percent in 2017 to 10.2 in 2019.[17]

Other expenses and net income

Classified below the operating income level are interest expense, other expense, and other income, which are usually allocated to the product line from high levels in the corporation. In table VI-1, these items are aggregated and only the net amount is shown. The net "all other expenses" increased from 2017 to 2019.[18]

On an overall basis and similar to the trend in operating income, net income irregularly declined from $125.6 million in 2017 to $99.5 million in 2019. The net income margin (net income as a ratio to net sales) also irregularly declined from 2017 to 2019.[19]

---

[15] For merchant market operations, total SG&A expenses and SG&A expense ratio irregularly increased from 2017 to 2019 (table F-1 in Appendix F).

[16] ***. Email from ***, July 10, 2020.

[17] For merchant market operations, operating income and operating income margin irregularly increased from 2017 to 2019 (table F-1 in Appendix F).

[18] ***. Email from ***, July 16, 2020.

[19] For merchant market operations, net income and net income margin irregularly increased from 2017 to 2019 (table F-1 in Appendix F).

Variance analysis

A variance analysis is most useful for products that do not have substantial changes in product mix over the period investigated and the methodology is most sensitive at the plant or firm level, rather than the aggregated industry level. Because of the wide variation in product mix and unit values between firms and partial year production reported by two firms, a variance analysis is not presented.

Capital expenditures and research and development expenses

Table VI-5 presents the responding firms' aggregate data on capital expenditures and research and development ("R&D") expenses. Capital expenditures and R&D expenses irregularly increased from 2017 to 2019. Nineteen firms reported capital expenditures and six firms reported R&D expenses during the period for which data were requested. The majority of reported capital expenditures reflect the data of ***, which represented *** of total capital expenditures from January 2017 to December 2019, respectively. The majority of reported R&D expenses reflect the data of *** which represented *** of total R&D expenses January 2017 to December 2019, respectively.

Table VI-5
PET sheet: Capital expenditures and research and development expenses for U.S. producers, 2017-2019

Item	Fiscal year		
	2017	2018	2019
	Value (1,000 dollars)		
Capital expenditures	24,019	32,922	26,364
R&D expenses	461	1,242	1,137

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

Assets and return on assets

Table VI-6 presents data on the U.S. producers' total assets and their operating return on assets (operating income divided by total assets).[20] Total net assets increased from 2017 to 2019 while the U.S. producers' return on assets ("ROA") irregularly declined from 2017 to 2019. The data reported by *** generate unusually high ROA calculations for these firms throughout the reporting period, and led to the relatively high industry averages presented in table VI-6. ***.[21] ***.[22]

Table VI-6
PET sheet: Value of assets used in production, warehousing, and sales, and operating ROA for U.S. producers, 2017-19

Firm	Fiscal years		
	2017	2018	2019
	Value (1,000 dollars)		
Total net assets	266,292	287,736	293,002
	Percent		
Operating ROA	49.8	33.8	37.5

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

[20] With respect to a company's overall operations, staff notes that total asset value (i.e., the bottom line number on the asset side of a company's balance sheet) reflects an aggregation of a number of assets which are generally not product specific. Accordingly, high level corporate allocations may be required in order to report a total asset value for PET sheet.

[21] Email from ***, June 22, 2020.

[22] Email from ***, July 23, 2020.

Capital and investment

The Commission requested U.S. producers of PET sheet to describe any actual or potential negative effects of imports of PET sheet from Korea and Oman on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-7 presents U.S. producers' responses in a tabulated format and table VI-8 provides the narrative responses.

Table VI-7
PET sheet: Actual and anticipated negative effects of imports on investment and growth and development

Item	No	Yes
Negative effects on investment	14	8
Cancellation, postponement, or rejection of expansion projects		4
Denial or rejection of investment proposal		4
Reduction in the size of capital investments		4
Return on specific investments negatively impacted		6
Other		4
Negative effects on growth and development	13	9
Rejection of bank loans		4
Lowering of credit rating		3
Problem related to the issue of stocks or bonds		1
Ability to service debt		4
Other		7
Anticipated negative effects of imports	12	10

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

Table VI-8
PET sheet: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2017

Item / Firm	Narrative
Cancellation, postponement, or rejection of expansion projects:	
***	***
***	***
***	***
***	***
Denial or rejection of investment proposal:	
***	***
***	***
***	***
***	***
Reduction in the size of capital investments:	
***	***
***	***
***	***
***	***

Table continued on next page.

Table VI-8—Continued
PET sheet: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2017

Return on specific investments negatively impacted:	
***	***
***	***
***	***
***	***
***	***
***	***
Other negative effects on investments:	
***	***
***	***
***	***
***	***
Rejection of bank loans:	
***	***
***	***
***	***
***	***

Table continued on next page.

Table VI-8—Continued
PET sheet: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2017

Lowering of credit rating:	
***	***
***	***
***	***
Problem related to the issue of stocks or bonds:	
***	***
Ability to service debt:	
***	***
***	***
***	***
***	***
Other effects on growth and development:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***

Table continued on next page.

Table VI-8—Continued
PET sheet: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2017

Anticipated effects of imports:	
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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*[1]*--*
>
> *(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,*

---

[1] 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).[2]

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.

[2] 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 Korea

The Commission issued foreign producers' or exporters' questionnaires to 16 firms believed to produce and/or export PET sheet from Korea.[3] Usable responses to the Commission's questionnaire were received from five firms: KPtech, Mijung Chemical Corp. ("Mijung"), Plastech Co., Ltd. ("Plastech"), Samjin Plastic Co., Ltd. ("Samjin"), and Tae Kwang New Tech ("Tae Kwang").[4] These firms' exports to the United States accounted for approximately *** percent of U.S. imports reported in questionnaire responses of PET sheet from Korea in 2019.[5] According to estimates requested of the responding Korean producers, the production of PET sheet in Korea reported in questionnaires accounts for approximately *** percent of overall production of PET sheet in Korea. Table VII-1 presents information on the PET sheet operations of the responding producers and exporters in Korea.

Table VII-1
PET sheet: Summary data on firms in Korea, 2019

Firm	Production (1,000 pounds)	Share of reported production (percent)	Exports to the United States (1,000 pounds)	Share of reported exports to the United States (percent)	Total shipments (1,000 pounds)	Share of firm's total shipments exported to the United States (percent)
KPtech	***	***	***	***	***	***
Mijung	***	***	***	***	***	***
Plastech	***	***	***	***	***	***
Samjin	***	***	***	***	***	***
Tae Kwang	***	***	***	***	***	***
Total	154,908	***	***	***	153,449	***

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

[3] These firms were identified through a review of information submitted in the petition and contained in proprietary Customs records.

[4] Two firms certified that they had not produced or exported PET sheet since January 1, 2017: ***. *** was not responsive during the final phase investigations, but certified it had not produced or exported PET sheet since January 1, 2016 during the preliminary phase of the investigations.

[5] Jin Young Chemical Co., Ltd. ***. Jin Young Chemical Co., Ltd. did not complete a foreign producer questionnaire, but its website indicates that, as of May 2013, it has three extrusion lines to produce PET sheet, with a combined capacity of 16,200 metric tons per year, or 35.7 million pounds. Jin Young Chemical Co., Ltd.'s Website, http://www.jychemical.com/us/company/index3.htm, retrieved June 23, 2020.

Changes in operations

As presented in table VII-2, producers in Korea reported shutdowns, expansions, and upgrades since January 1, 2017.

Table VII-2
PET sheet: Reported changes in operations by producers in Korea, since January 1, 2017

Item / Firm	Reported changed in operations
Expansions:	
***	***
Prolonged shutdowns or curtailments:	
***	***
Other:	
***	*** ***

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

Operations on PET sheet

Table VII-3 presents information on the PET sheet operations of the responding producers and exporters in Korea. Capacity increased by 16.9 percent from 2017 to 2019, but is projected to decrease by 3.5 percent from 2020 to 2021, as ***. Production increased from 2017 to 2019, by 14.6 percent, and is projected to decrease by 2.3 percent from 2020 to 2021.

The majority of Korean producers' shipments were home market shipments, ranging from 89.1 to 93.7 percent of total shipments from 2017 to 2019. Approximately *** of home market shipments were commercial shipments and *** were internal consumption or transfers to related firms. From 2017 to 2019, commercial home shipments increased by *** percent and internal consumption/transfers to related firms increased by *** percent, resulting in a 10.9 percent increase in home market shipments. Both commercial shipments and internal consumption/transfers to related firms are projected to decrease from 2020 to 2021, for a projected 4.4 percent decrease in total home shipments.

From 2017 to 2019, the share of export shipments ranged from 6.3 percent to 10.9 percent of total shipments, approximately *** of which were exported to the United States.[6] From 2017 to 2018, export shipments to the United States increased by *** percent, then decreased from 2018 to 2019 by *** percent, for an overall increase of *** percent from 2017 to 2019. Exports to all other markets increased by *** percent from 2017 to 2019.[7] Exports to the United States are projected to increase by *** percent from 2020 to 2021, while exports to all other markets are projected to increase by *** percent.

Capacity utilization ranged from 88.2 to 90.6 percent from 2017 to 2019, and is projected to increase by 6.8 percentage points between 2019 and 2020, to 95.6 percent.

[6] ***. *** foreign producer questionnaire response, questions II-9 and II-10.

[7] Korean producers identified the following other export markets: ***.

Table VII-3
PET sheet: Data on industry in Korea, 2017-19 and projection calendar years 2020 and 2021

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2017	2018	2019	2020	2021
	Quantity (1,000 pounds)				
Capacity	149,230	152,053	174,468	171,505	165,505
Production	135,180	134,123	154,908	163,900	160,100
End-of-period inventories	3,825	5,598	7,057	5,809	5,911
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	126,048	117,914	139,763	140,157	133,952
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	8,412	14,436	13,686	24,991	26,046
Total shipments	134,460	132,350	153,449	165,148	159,998
	Ratios and shares (percent)				
Capacity utilization	90.6	88.2	88.8	95.6	96.7
Inventories/production	2.8	4.2	4.6	3.5	3.7
Inventories/total shipments	2.8	4.2	4.6	3.5	3.7
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	93.7	89.1	91.1	84.9	83.7
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	6.3	10.9	8.9	15.1	16.3
Total shipments	100.0	100.0	100.0	100.0	100.0
	Quantity (1,000 pounds)				
Resales exported to the United States	***	***	***	***	***
Total exports to the United States	***	***	***	***	***
	Ratios and shares (percent)				
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.

Alternative products

As shown in table VII-4, *** reported that it produced *** on the same equipment and machinery used to produce PET sheet.

Table VII-4
PET sheet: Overall capacity and production on the same equipment as in-scope production by producers in Korea, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Overall capacity	***	***	***
Production:			
PET sheet	135,180	134,123	154,908
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***
	Ratios and shares (percent)		
Overall capacity utilization	***	***	***
Share of production:			
PET sheet	***	***	***
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***

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

Exports

According to GTA, the leading export markets for PET sheet, film, and strip from Korea are China, Japan, and the United States (table VII-5). During 2019, the United States was the third largest export market for PET sheet, film, and strip from Korea, accounting for 13.8 percent. The largest export market in 2019 for PET sheet, film, and strip from Korea was China, accounting for 27.7 percent, followed by Japan, which accounted for 20.3 percent.

Table VII-5
PET plate, sheet, film, foil, and strip: Exports from Korea by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
United States	60,763	66,946	67,135
China	93,029	124,780	135,384
Japan	116,822	105,207	99,221
Vietnam	23,714	33,611	45,487
Taiwan	14,909	21,516	22,994
Germany	26,471	25,165	22,308
Philippines	18,426	27,557	17,627
Hong Kong	10,724	8,796	11,758
Italy	14,857	14,729	8,946
All other destination markets	61,344	60,810	57,241
Total exports	441,058	489,116	488,100
	Value (1,000 dollars)		
United States	72,943	75,092	84,517
China	259,947	343,347	464,018
Japan	187,621	155,696	159,852
Vietnam	138,390	178,787	189,791
Taiwan	24,864	38,207	44,088
Germany	41,021	44,352	41,660
Philippines	35,699	58,977	44,689
Hong Kong	71,169	78,573	76,967
Italy	28,387	31,053	23,334
All other destination markets	106,042	108,134	105,800
Total exports	966,082	1,112,219	1,234,717

Table continued on next page.

Table VII-5 – Continued
PET plate, sheet, film, foil, and strip: Exports from Korea by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Unit value (dollars per pound)		
United States	1.20	1.12	1.26
China	2.79	2.75	3.43
Japan	1.61	1.48	1.61
Vietnam	5.84	5.32	4.17
Taiwan	1.67	1.78	1.92
Germany	1.55	1.76	1.87
Philippines	1.94	2.14	2.54
Hong Kong	6.64	8.93	6.55
Italy	1.91	2.11	2.61
All other destination markets	1.73	1.78	1.85
Total exports	2.19	2.27	2.53
	Share of quantity (percent)		
United States	13.8	13.7	13.8
China	21.1	25.5	27.7
Japan	26.5	21.5	20.3
Vietnam	5.4	6.9	9.3
Taiwan	3.4	4.4	4.7
Germany	6.0	5.1	4.6
Philippines	4.2	5.6	3.6
Hong Kong	2.4	1.8	2.4
Italy	3.4	3.0	1.8
All other destination markets	13.9	12.4	11.7
Total exports	100.0	100.0	100.0

Note.--United States is shown at the top, all remaining top export destinations shown in descending order of 2019 data.

Source: Official exports statistics under HS subheading 3920.62 as reported by Korea Customs and Trade Development Institution in the Global Trade Atlas database, accessed May 4, 2020. The products in HS subheading 3920.62 are noncellular and not reinforced, laminated, supported or similarly combined with other materials.

The industry in Oman

The Commission issued a foreign producers' or exporters' questionnaire to one firm, OCTAL SAOC, believed to produce and export PET sheet from Oman, and a usable response was received.[8] OCTAL SAOC's exports to the United States accounted for *** percent of U.S. imports of PET sheet from Oman in 2019.[9] According to estimates requested of OCTAL SAOC, the production of PET sheet in Oman reported in its questionnaire response accounts for approximately *** percent of overall production of PET sheet in Oman. Table VII-6 presents information on the PET sheet operations of Oman producer OCTAL SAOC.

Table VII-6
PET sheet: Summary data on Oman producer, 2019

Firm	Production (1,000 pounds)	Share of reported production (percent)	Exports to the United States (1,000 pounds)	Share of reported exports to the United States (percent)	Total shipments (1,000 pounds)	Share of firm's total shipments exported to the United States (percent)
OCTAL SAOC	***	***	***	***	***	***
Total	***	***	***	***	***	***

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

[8] This firm was identified through a review of information submitted in the petition and contained in *** records.

[9] Given that OCTAL SAOC is the sole producer of PET sheet in Oman, it should account for all U.S. imports of PET sheet from Oman in 2019. However, Octal Inc., the sole importer of PET sheet from Oman, reported importing *** pounds of PET sheet from Oman in 2019, while OCTAL SAOC reported exporting *** pounds of PET sheet to the United States.

Changes in operations

As presented in table VII-7, OCTAL SAOC reported *** since January 1, 2017.

Table VII-7
PET sheet: Reported changes in operations by Oman producer, since January 1, 2017

Item / Firm	Reported changed in operations
Expansions:	
***	***
Prolonged shutdowns or curtailments:	
***	***

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

Operations on PET sheet

Table VII-8 presents information on the PET sheet operations of OCTAL SAOC. Capacity was unchanged from 2017 to 2019. ***, capacity is projected to increase by *** percent from 2019 to 2020, and *** percent between 2020 and 2021. Production decreased from 2017 to 2018, by *** percent, then increased by *** percent from 2018 to 2019. Production is projected to increase by *** percent from 2020 to 2021.

End-of-period inventories increased by *** percent from 2017 to 2018. OCTAL SAOC reported that increases in end-of-period inventories ***. End-of-period inventories decreased from 2018 to 2019 by *** percent, and are projected to decrease by *** percent from 2020 to 2021.

The majority of OCTAL SAOC's shipments were exports, ranging from *** to *** percent of total shipments from 2017 to 2019, approximately two-thirds of which were exported to the United States. The share of shipments to the United States out of total shipments increased by *** percentage points from 2017 to 2019. From 2017 to 2018, export shipments to the United States decreased by *** percent, then increased from 2018 to 2019 by *** percent, for an overall increase of *** percent from 2017 to 2019. Exports to all

other markets decreased by *** percent from 2017 to 2019.[10] Exports to the United States and all other markets are projected to increase by *** percent from 2020 to 2021.

Capacity utilization ranged from a low of *** in 2018, the year that Cyclone Mekunu occurred, and a high of *** in 2019. Capacity utilization is projected to decrease by *** percentage points to *** percent from 2019 to 2020.

Table VII-8
PET sheet: Data on Oman producer, 2017-19 and projection calendar years 2020 and 2021

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2017	2018	2019	2020	2021
	Quantity (1,000 pounds)				
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	***	***	***	***	***
	Ratios and shares (percent)				
Capacity utilization	***	***	***	***	***
Inventories/production	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	***	***	***	***	***

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

[10] OCTAL SAOC also exports to: ***.

Alternative products

As shown in table VII-9, OCTAL SAOC reported it produced *** on the same equipment and machinery used to produce PET sheet.[11]

Table VII-9
PET sheet: Overall capacity and production on the same equipment as in-scope production by Oman producer, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Overall capacity	***	***	***
Production:			
PET sheet	***	***	***
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***
	Ratios and shares (percent)		
Overall capacity utilization	***	***	***
Share of production:			
PET sheet	***	***	***
Out-of-scope production	***	***	***
Total production on same machinery	***	***	***

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

Exports

According to GTA, the leading export markets for PET sheet, film, and strip from Oman are the United States, Canada, and the United Kingdom (table VII-10). During 2019, the United States was the top export market for PET sheet from Oman, accounting for 74.5 percent, followed by the Canada, accounting for 5.9 percent.

[11] ***. Email and phone correspondence with respondent OCTAL SAOC's counsel, Mr. Daniel Porter, on June 22, 2020, and OCTAL SAOC's foreign producer questionnaire responses to questions II-3c, II-4b, and II-8.

Table VII-10
PET plate, sheet, film, foil, and strip: Exports from Oman by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
United States	296,804	259,695	363,542
Canada	27,082	38,349	27,114
United Kingdom	38,199	24,674	25,898
Ireland	8,539	7,109	10,732
Denmark	10,414	10,269	8,788
Spain	5,944	3,323	5,376
Belgium	10,149	6,207	3,268
Netherlands	2,827	2,197	2,908
Peru	85	417	2,162
All other destination markets	83,913	79,199	12,398
Total exports	483,957	431,438	462,187
	Value (1,000 dollars)		
United States	206,435	208,309	266,065
Canada	17,781	27,555	20,314
United Kingdom	21,310	16,798	15,869
Ireland	5,719	5,081	6,106
Denmark	6,288	7,435	6,036
Spain	3,561	2,362	3,469
Belgium	6,474	4,534	2,349
Netherlands	1,841	1,708	2,698
Peru	54	295	1,428
All other destination markets	51,999	51,931	7,861
Total exports	321,462	326,008	332,194

Table continued on next page.

Table VII-10 – Continued
PET plate, sheet, film, foil, and strip: Exports from Oman by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Unit value (dollars per pound)		
United States	0.70	0.80	0.73
Canada	0.66	0.72	0.75
United Kingdom	0.56	0.68	0.61
Ireland	0.67	0.71	0.57
Denmark	0.60	0.72	0.69
Spain	0.60	0.71	0.65
Belgium	0.64	0.73	0.72
Netherlands	0.65	0.78	0.93
Peru	0.64	0.71	0.66
All other destination markets	0.62	0.66	0.63
Total exports	0.66	0.76	0.72
	Share of quantity (percent)		
United States	61.3	60.2	78.7
Canada	5.6	8.9	5.9
United Kingdom	7.9	5.7	5.6
Ireland	1.8	1.6	2.3
Denmark	2.2	2.4	1.9
Spain	1.2	0.8	1.2
Belgium	2.1	1.4	0.7
Netherlands	0.6	0.5	0.6
Peru	0.0	0.1	0.5
All other destination markets	17.3	18.4	2.7
Total exports	100.0	100.0	100.0

Note.-- United States is shown at the top, all remaining top export destinations shown in descending order of 2019 data.

Source: Official imports statistics of imports from Oman (constructed export statistics for Oman) under HS subheading 3920.62 as reported by various statistical reporting authorities in the Global Trade Atlas database, accessed August 4, 2020. The products in HS subheading 3920.62 are noncellular and not reinforced, laminated, supported or similarly combined with other materials.

Subject countries combined

Table VII-11 presents summary data on PET sheet operations of the reporting subject producers in the subject countries.

Table VII-11
PET sheet: Data on industry in subject countries, 2017-19 and projection calendar years 2020 and 2021

Item	Actual experience			Projections	
	Calendar year			Calendar year	
	2017	2018	2019	2020	2021
	Quantity (1,000 pounds)				
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	***	***	***	***	***
	Ratios and shares (percent)				
Capacity utilization	***	***	***	***	***
Inventories/production	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Total home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	***	***	***	***	***
	Quantity (1,000 pounds)				
Resales exported to the United States	***	***	***	***	***
Total exports to the United States	***	***	***	***	***
	Ratios and shares (percent)				
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.

U.S. inventories of imported merchandise

Table VII-12 presents data on U.S. importers' reported inventories of PET sheet. End-of-period inventories increased from 2017 to 2019 for imports from Korea and Oman, by *** percent and *** percent, respectively, for an overall increase in end-of-period inventories for subject countries of *** percent. End-of-period inventories decreased from 2017 to 2019 for nonsubject sources, by *** percent.

Table VII-12
PET sheet: U.S. importers' end-of-period inventories of imports by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Inventories (1,000 pounds); Ratios (percent)		
Imports from Korea			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from Oman			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from subject sources			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from Canada			
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 PET sheet from Korea and Oman after January 1, 2020. Ten of the 15 responding importers indicated they had arranged such imports. These data are presented in table VII-13.

Table VII-13
PET sheet: Arranged imports, January 2020 through December 2020

Item	Period				
	Jan-Mar 2020	Apr-Jun 2020	Jul-Sept 2020	Oct-Dec 2020	Total
	Quantity (1,000 pounds)				
Arranged U.S. imports from.--					
Korea	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
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 antidumping or countervailing duty orders on PET sheet in third-country markets.

Information on nonsubject countries

Global capacity, production, and shipments

PET sheet is derived from PET resin. According to published sources, global capacity for PET resin in 2017 was ***.[12] China accounts for approximately *** of the global production capacity. North America's share of global capacity declined from *** percent in 1990 to *** percent in 2017. In 2017, China,

[12] The most recent annual period for which published global capacity data are available is 2017. *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 7.

Korea, Taiwan, the Middle East, and Mexico were the *** in the world, which together accounted for more than *** of global exports.[13]

During the preliminary period of investigations, the leading source of nonsubject imports was Canada.[14] In the category of "other PET" which includes sheet, film, fiber and strap, Canadian consumption is expected to grow *** percent from 2017-22.[15] Table VII-14 presents Canada exports of PET sheet, film, and strip, by destination market from 2017 to 2019. Canada exported $64 million in PET plate, sheet, film, foil, and strip to the U.S. in 2017, $75 million in 2018, and $70 million in 2019.

Table VII-14
PET plate, sheet, film, foil, and strip: Exports from Canada by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
United States	58,175	64,931	65,146
United Kingdom	360	148	73
China	21	136	52
Nigeria	53	---	43
Mexico	10	34	37
Russia	23	2	26
Turkey	16	1	24
Germany	32	23	19
Togo	22	94	17
All other destination markets	113	414	63
Total exports	58,825	65,784	65,502
	Value (1,000 dollars)		
United States	64,198	75,285	70,146
United Kingdom	1,481	338	132
China	127	275	231
Nigeria	317	---	238
Mexico	55	107	139
Russia	199	17	216
Turkey	92	6	21
Germany	143	79	67
Togo	123	527	95
All other destination markets	637	1,471	350
Total exports	67,372	78,106	71,634

Table continued on next page.

[13] *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 39.

[14] Polyethylene Terephthalate (PET) Sheet from the Republic of Korea, Mexico, and Oman, Investigation Nos. 731-TA-1455-1457 (Preliminary), USITC Publication 4970, September 2019, p. 28.

[15] *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 55.

Table VII-14 – Continued
PET plate, sheet, film, foil, and strip: Exports from Canada by destination market, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Unit value (dollars per pound)		
United States	1.10	1.16	1.08
United Kingdom	4.11	2.28	1.80
China	6.15	2.03	4.40
Nigeria	5.98	---	5.56
Mexico	5.67	3.13	3.70
Russia	8.54	7.87	8.18
Turkey	5.70	5.23	0.87
Germany	4.51	3.39	3.55
Togo	5.50	5.58	5.56
All other destination markets	5.64	3.55	5.56
Total exports	1.15	1.19	1.09
	Share of quantity (percent)		
United States	98.9	98.7	99.5
United Kingdom	0.6	0.2	0.1
China	0.0	0.2	0.1
Nigeria	0.1	---	0.1
Mexico	0.0	0.1	0.1
Russia	0.0	0.0	0.0
Turkey	0.0	0.0	0.0
Germany	0.1	0.0	0.0
Togo	0.0	0.1	0.0
All other destination markets	0.2	0.6	0.1
Total exports	100.0	100.0	100.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. United States is shown at the top, all remaining top export destinations shown in descending order of 2019 data.

Source: Official exports statistics under HS subheading 3920.62 as reported by Statistics Canada in the Global Trade Atlas database, accessed May 4, 2020. The products in HS subheading 3920.62 are noncellular and not reinforced, laminated, supported or similarly combined with other materials.

Table VII-15 presents global capacity, production, trade, and consumption data on a regional basis for PET resin. Table VII-16 shows world consumption by end use for 2017 and forecasted consumption for 2022. The largest end use globally is beverages, which accounts for *** percent, followed by other PET (including PET sheet and film, strapping and industrial fiber) *** percent, food packaging *** percent, cosmetics *** percent, and pharmaceuticals *** percent of end use in 2017.[16] PET resin consumption is expected to

[16] *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 6-7.

increase by *** percent globally from 2017-22, and the percentages of consumption by end use is predicted to remain largely the same.[17] According to another published source, in 2016 PET sheet and film accounted for 13.8 percent of the global consumption of PET resin by end use.[18]

[17] Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins, IHS, March 2018, p. 7.

[18] Garside, M., "Distribution of polyethylene terephthalate (PET) consumption worldwide in 2016, by end-use," Statistica, July 2, 2018.

Table VII-15
PET resin: World capacity, production, imports, exports, and consumption 2016 and 2017, projected capacity and consumption 2022, and annual growth rate, 2017-22 (forecast), by region/country

Region/ Country	Annual average virgin capacity			Production 2017			Trade		Consumption			Average annual consump-tion growth rate, 2017-22 (percent)
	2016	2017	2022	Virgin	Re-cycle	Total	Imports 2017	Exports 2017	2014	2017	2022	
	Quantity (1,000 metric tons)											
North America												
United States	***	***	***	***	***	***	***	***	***	***	***	***
Canada	***	***	***	***	***	***	***	***	***	***	***	***
Mexico	***	***	***	***	***	***	***	***	***	***	***	***
Total North America	***	***	***	***	***	***	***	***	***	***	***	***%
South America	***	***	***	***	***	***	***	***	***	***	***	***
Western Europe	***	***	***	***	***	***	***	***	***	***	***	***
Central Europe	***	***	***	***	***	***	***	***	***	***	***	***
CIS and Baltic States	***	***	***	***	***	***	***	***	***	***	***	***
Middle East	***	***	***	***	***	***	***	***	***	***	***	***
Africa	***	***	***	***	***	***	***	***	***	***	***	***
Indian Subcontinent	***	***	***	***	***	***	***	***	***	***	***	***
Northeast Asia												
China	***	***	***	***	***	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***	***	***	***	***	***
South Korea	***	***	***	***	***	***	***	***	***	***	***	***
Taiwan	***	***	***	***	-	***	***	***	***	***	***	***
Other	***	***	***	***	***	***	***	***	***	***	***	***
Total Northeast Asia	***	***	***	***	***	***	***	***	***	***	***	***%
Southeast Asia	***	***	***	***	***	***	***	***	***	***	***	***
Total World[2]	***	***	***	***	***	***	***	***	***	***	***	***%

Note: Estimates are not exhaustive, due to incomplete information on some regional recycling activities. Totals for world do not add to exact figure due to rounding.

Source: *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 7.

Table VII-16
PET resin: World Consumption by end use–2017 (top) and forecast 2022 (bottom)

Region/Country Year 2017	Beverage	Food	Cosmetic	Pharmaceutical	Other PET	Total
	Quantity (1,000 Metric tons)					
North America United States	***	***	***	***	***	***
Canada	***	***	***	***	***	***
Mexico	***	***	***	***	***	***
Total North America	***	***	***	***	***	***
South America	***	***	***	***	***	***
Western Europe	***	***	***	***	***	***
Central Europe	***	***	***	***	***	***
CIS & Baltic States	***	***	***	***	***	***
Middle East	***	***	***	***	***	***
Africa	***	***	***	***	***	***
Indian Subcontinent	***	***	***	***	***	***
Northeast Asia						
China	***	***	***	***	***	***
Japan	***	***	***	***	***	***
Korea	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***
Other	***	***	***	***	***	***
Total Northeast Asia	***	***	***	***	***	***
Southeast Asia	***	***	***	***	***	***
Total	***	***	***	***	***	***

World Consumption 2022, forecast

Region/Country Year 2022	Beverage	Food	Cosmetics	Pharmaceutical	Other PET	Total
	Quantity (1,000 metric tons)					
North America United States	***	***	***	***	***	***
Canada	***	***	***	***	***	***
Mexico	***	***	***	***	***	***
Total North America	***	***	***	***	***	***
South America	***	***	***	***	***	***
Western Europe	***	***	***	***	***	***
Central Europe	***	***	***	***	***	***
CIS & Baltic States	***	***	***	***	***	***
Middle East	***	***	***	***	***	***
Africa	***	***	***	***	***	***
Indian Subcontinent	***	***	***	***	***	***
Northeast Asia						
China	***	***	***	***	***	***
Japan	***	***	***	***	***	***
Korea	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***
Other	***	***	***	***	***	***
Total Northeast Asia	***	***	***	***	***	***
Southeast Asia	***	***	***	***	***	***
Total	***	***	***	***	***	***

SOURCE: *Chemical Economics Handbook*: *Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, pp. 8-9.

The two largest non-subject exporters of PET plates, sheets, film, foil, and strip globally in 2019 by quantity were China (970 million pounds, $1.16 billion, 19.4 percent share), India (385 million pounds, $327 million, 7.7 percent share) and Germany (326 million pounds, $576 million, 6.5 percent share) as shown in table VII-17.

Table VII-17
PET plate, sheet, film, foil, and strip: Global exports by exporter 2017-19

Exporter	Calendar year		
	2017	2018	2019
	Quantity (1,000 pounds)		
United States	204,433	198,194	188,401
Korea	441,058	489,116	488,100
Oman	483,957	431,438	462,187
China	827,936	904,472	970,375
India	345,030	400,172	384,631
Germany	306,742	324,693	326,303
Japan	277,217	308,839	292,546
Taiwan	266,194	291,528	275,654
Turkey	112,187	165,631	271,737
Thailand	230,738	261,134	266,734
Portugal	130,880	146,269	211,328
Italy	150,757	150,762	172,100
All other exporters	1,238,828	891,443	693,322
Total	5,015,955	4,963,692	5,003,419
	Value (1,000 dollars)		
United States	548,785	561,677	506,137
Korea	966,082	1,112,219	1,234,717
Oman	321,462	326,008	332,194
China	1,193,356	1,211,400	1,159,383
India	257,754	353,852	327,069
Germany	539,732	602,728	576,440
Japan	1,117,947	1,147,638	1,043,746
Taiwan	411,984	467,465	448,819
Turkey	80,719	121,328	228,857
Thailand	182,684	234,829	230,832
Portugal	108,106	136,686	185,520
Italy	169,569	193,299	210,361
All other exporters	1,753,904	1,931,118	1,703,896
Total	7,652,084	8,400,248	8,187,972

Table continued on next page.

Table VII-17--Continued
PET plate, sheet, film, foil, and strip: Global exports by exporter 2017-19

Exporter	Calendar year		
	2017	2018	2019
	Unit value (dollars per pound)		
United States	2.68	2.83	2.69
Korea	2.19	2.27	2.53
Oman	0.66	0.76	0.72
China	1.44	1.34	1.19
India	0.75	0.88	0.85
Germany	1.76	1.86	1.77
Japan	4.03	3.72	3.57
Taiwan	1.55	1.60	1.63
Turkey	0.72	0.73	0.84
Thailand	0.79	0.90	0.87
Portugal	0.83	0.93	0.88
Italy	1.12	1.28	1.22
All other exporters	1.42	2.17	2.46
Total	1.53	1.69	1.64
	Share of quantity (percent)		
United States	4.1	4.0	3.8
Korea	8.8	9.9	9.8
Oman	9.6	8.7	9.2
China	16.5	18.2	19.4
India	6.9	8.1	7.7
Germany	6.1	6.5	6.5
Japan	5.5	6.2	5.8
Taiwan	5.3	5.9	5.5
Turkey	2.2	3.3	5.4
Thailand	4.6	5.3	5.3
Portugal	2.6	2.9	4.2
Italy	3.0	3.0	3.4
All other exporters	24.7	18.0	13.9
Total	100.0	100.0	100.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Official export statistics under HS subheading 3920.62 reported by various national statistical authorities in the Global Trade Atlas database, accessed May 4, 2020, and official global import statistics from Oman under HS subheading 3920.62, as reported by UN Comtrade in the Global Trade Atlas database, accessed August 4, 2020. The products in HS subheading 3920.62 are noncellular and not reinforced, laminated, supported or similarly combined with other materials.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, 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 33785, July 15, 2019	*Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, Oman; Institution of Anti-Dumping Investigations and Scheduling of Preliminary Phase Investigations*	https://www.govinfo.gov/content/pkg/FR-2019-07-15/pdf/2019-14915.pdf
84 FR 38296, August 6, 2019	*Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman; Revised Schedule for the Subject Investigations*	https://www.govinfo.gov/content/pkg/FR-2019-08-06/pdf/2019-16698.pdf
84 FR 39801, August 12, 2019	*Notice of Extension of the Deadline for Determining the Adequacy of the Antidumping Duty Petitions: Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman*	https://www.govinfo.gov/content/pkg/FR-2019-08-12/pdf/2019-17098.pdf
84 FR 44854, August 27, 2019	*Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*	https://www.govinfo.gov/content/pkg/FR-2019-08-27/pdf/2019-18370.pdf
84 FR 49116, September 18, 2019	*Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman; Determinations*	https://www.govinfo.gov/content/pkg/FR-2019-09-18/pdf/2019-20190.pdf
85 FR 12500, March 3, 2020	*Polyethylene Terephthalate Sheet From the Republic of Korea: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2020-03-03/pdf/2020-04344.pdf

85 FR 12513, March 3, 2020	*Polyethylene Terephthalate Sheet From the Sultanate of Oman: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2020-03-03/pdf/2020-04346.pdf
85 FR 15796, March 19, 2020	*Polyethylene Terephthalate (PET) Sheet from Korea and Oman; Scheduling of the Final Phase of Anti- Dumping Duty Investigations*	https://www.govinfo.gov/content/pkg/FR-2020-03-19/pdf/2020-05724.pdf
85 FR 44276, July 22, 2020	*Polyethylene Terephthalate Sheet from the Republic of Korea: Final Determination of Sales at Less Than Fair Value*	https://www.govinfo.gov/content/pkg/FR-2020-07-22/pdf/2020-15896.pdf
85 FR 44278, July 22, 2020	*Polyethylene Terephthalate Sheet From the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*	https://www.govinfo.gov/content/pkg/FR-2020-07-22/pdf/2020-15897.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below participated in the United States International Trade Commission's hearing via video conference:

Subject: Polyethylene Terephthalate ("PET") Sheet from Korea and Oman

Inv. Nos.: 731-TA-1455 and 1457 (Final)

Date and Time: July 14, 2020 - 9:30 a.m.

OPENING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye and Warren LLP)
In Opposition to Imposition (**Daniel L. Porter**, Curtis, Mallet-Prevost, Colt & Mosle LLP)

In Support of the Imposition of Antidumping Duty Orders:

Kelley Drye and Warren LLP
Washington, DC
on behalf of

Advanced Extrusion, Inc.
Ex-Tech Plastics, Inc.
Multi-Plastics Extrusions, Inc.

John Parsio, Jr., President, Multi-Plastics Extrusions, Inc.

John Thibado, President and Chief Executive Officer,
Advanced Extrusion Inc.

Brian Grayczyk, President, Ex-Tech Plastics, Inc.

Douglas DeBode, General Manager, Multi-Plastics Extrusions, Inc.

Gina E. Beck, Economist, Georgetown Economic Services LLC

Michael T. Kerwin, Economist, Georgetown Economic Services LLC

Paul C. Rosenthal)
Kathleen W. Cannon) – OF COUNSEL
Brooke M. Ringel)

In Opposition to the Imposition of
Antidumping Duty Orders:

Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, DC
on behalf of

OCTAL SAOC-FZC
OCTAL Inc.

Tom Orkisz, President, Inline Plastics Corp.

Jeff McGuire, General Partner, Clearly Clean Products LLC

William J. (Joe) Barenberg, Jr., Chief Operating Officer, OCTAL Inc.

Chad Pyland, North American Sales Manager, OCTAL Inc.

Arnaud Figard, Chief Performance and Risk Officer, OCTAL SAOZ-FZC

Nataly Cazacova, Corporate Performance Controller, OCTAL SAOC-FZC

Daniel L. Porter)
) – OF COUNSEL
James P. Durling)

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye and Warren LLP)
In Opposition to Imposition (**James P. Durling**, Curtis, Mallet-Prevost, Colt & Mosle LLP)

-END-

APPENDIX C

SUMMARY DATA

Total market: All producers

Table C-1
PET sheet: Summary data concerning the U.S. total market, 2017-19

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports from:						
Korea:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▼***
Oman						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Subject sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Canada:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***

Table continued on next page.

Table C-1--Continued
PET sheet: Summary data concerning the U.S. total market, 2017-19
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. importers' U.S. shipments of imports from:--Continued						
All other sources:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▼***
Nonsubject sources:						
Quantity	39,423	44,697	49,697	▲26.1	▲13.4	▲11.2
Value	28,623	34,479	40,491	▲41.5	▲20.5	▲17.4
Unit value	$0.73	$0.77	$0.81	▲12.2	▲6.2	▲5.6
Ending inventory quantity	***	***	***	▼***	▼***	▼***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producers':						
Average capacity quantity	1,532,131	1,691,306	1,792,422	▲17.0	▲10.4	▲6.0
Production quantity	1,194,491	1,294,581	1,273,880	▲6.6	▲8.4	▼(1.6)
Capacity utilization (fn1)	78.0	76.5	71.1	▼(6.9)	▼(1.4)	▼(5.5)
U.S. shipments:						
Quantity	1,170,962	1,279,300	1,249,904	▲6.7	▲9.3	▼(2.3)
Value	1,025,862	1,150,878	1,104,651	▲7.7	▲12.2	▼(4.0)
Unit value	$0.88	$0.90	$0.88	▲0.9	▲2.7	▼(1.8)
Export shipments:						
Quantity	18,422	17,491	22,050	▲19.7	▼(5.1)	▲26.1
Value	22,969	22,371	26,762	▲16.5	▼(2.6)	▲19.6
Unit value	$1.25	$1.28	$1.21	▼(2.7)	▲2.6	▼(5.1)
Ending inventory quantity	42,142	38,141	38,850	▼(7.8)	▼(9.5)	▲1.9
Inventories/total shipments (fn1)	3.5	2.9	3.1	▼(0.5)	▼(0.6)	▲0.1
Production workers	2,261	2,457	2,495	▲10.3	▲8.7	▲1.5
Hours worked (1,000s)	4,453	4,571	4,604	▲3.4	▲2.6	▲0.7
Wages paid ($1,000)	102,466	115,554	120,453	▲17.6	▲12.8	▲4.2
Hourly wages (dollars per hour)	$23.01	$25.28	$26.16	▲13.7	▲9.9	▲3.5
Productivity (pounds per hour)	268.3	283.2	276.7	▲3.1	▲5.6	▼(2.3)
Unit labor costs	$0.09	$0.09	$0.09	▲10.2	▲4.1	▲5.9

Table continued on next page.

Table C-1--Continued
PET sheet: Summary data concerning the U.S. total market, 2017-19

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. producers':--Continued						
Net sales:						
Quantity	1,138,479	1,222,573	1,193,184	▲4.8	▲7.4	▼(2.4)
Value	1,009,625	1,118,262	1,076,551	▲6.6	▲10.8	▼(3.7)
Unit value	$0.89	$0.91	$0.90	▲1.7	▲3.1	▼(1.4)
Cost of goods sold (COGS)	824,559	965,273	904,810	▲9.7	▲17.1	▼(6.3)
Gross profit or (loss) (fn2)	185,065	152,989	171,741	▼(7.2)	▼(17.3)	▲12.3
SG&A expenses	52,530	55,782	61,740	▲17.5	▲6.2	▲10.7
Operating income or (loss) (fn2)	132,535	97,207	110,001	▼(17.0)	▼(26.7)	▲13.2
Net income or (loss) (fn2)	125,555	86,863	99,494	▼(20.8)	▼(30.8)	▲14.5
Capital expenditures	24,019	32,922	26,364	▲9.8	▲37.1	▼(19.9)
Research and development expenses	461	1,242	1,137	▲146.5	▲169.3	▼(8.5)
Net assets	266,292	287,736	293,002	▲10.0	▲8.1	▲1.8
Unit COGS	$0.72	$0.79	$0.76	▲4.7	▲9.0	▼(4.0)
Unit SG&A expenses	$0.05	$0.05	$0.05	▲12.1	▼(1.1)	▲13.4
Unit operating income or (loss) (fn2)	$0.12	$0.08	$0.09	▼(20.8)	▼(31.7)	▲15.9
Unit net income or (loss) (fn2)	$0.11	$0.07	$0.08	▼(24.4)	▼(35.6)	▲17.4
COGS/sales (fn1)	81.7	86.3	84.0	▲2.4	▲4.6	▼(2.3)
Operating income or (loss)/sales (fn1)	13.1	8.7	10.2	▼(2.9)	▼(4.4)	▲1.5
Net income or (loss)/sales (fn1)	12.4	7.8	9.2	▼(3.2)	▼(4.7)	▲1.5

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). 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.

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.

Merchant market: All producers

Table C-2
PET sheet: Summary data concerning the U.S. merchant market, 2017-19

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity:						
Amount	***	***	***	▲***	▼***	▲***
Producers' share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▼***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1)	***	***	***	▼***	▼***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▲***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from:--						
Korea:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▼***
Oman:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Subject sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Canada:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***

Table continued on next page.

Table C-2--Continued
PET sheet: Summary data concerning the U.S. merchant market, 2017-19
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. importers' U.S. shipments of imports from:--Continued						
All other sources:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▼***
Nonsubject:						
Quantity	39,423	44,697	49,697	▲26.1	▲13.4	▲11.2
Value	28,623	34,479	40,491	▲41.5	▲20.5	▲17.4
Unit value	$0.73	$0.77	$0.81	▲12.2	▲6.2	▲5.6
Ending inventory quantity	***	***	***	▼(25.5)	▼(16.7)	▼(10.6)
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producers:						
Commercial U.S. shipments:						
Quantity	315,048	321,346	282,955	▼(10.2)	▲2.0	▼(11.9)
Value	342,019	369,193	317,427	▼(7.2)	▲7.9	▼(14.0)
Unit value	$1.09	$1.15	$1.12	▲3.3	▲5.8	▼(2.4)
Commercial sales:						
Quantity	327,660	333,423	302,996	▼(7.5)	▲1.8	▼(9.1)
Value	357,291	385,058	341,728	▼(4.4)	▲7.8	▼(11.3)
Unit value	$1.09	$1.15	$1.13	▲3.4	▲5.9	▼(2.3)
Cost of goods sold (COGS)	314,787	344,463	293,876	▼(6.6)	▲9.4	▼(14.7)
Gross profit or (loss) (fn2)	42,504	40,595	47,852	▲12.6	▼(4.5)	▲17.9
SG&A expenses	19,192	19,025	23,282	▲21.3	▼(0.9)	▲22.4
Operating income or (loss) (fn2)	23,312	21,570	24,570	▲5.4	▼(7.5)	▲13.9
Net income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
Unit COGS	$0.96	$1.03	$0.97	▲1.0	▲7.5	▼(6.1)
Unit SG&A expenses	$0.06	$0.06	$0.08	▲31.2	▼(2.6)	▲34.7
Unit operating income or (loss) (fn2)	$0.07	$0.06	$0.08	▲14.0	▼(9.1)	▲25.3
Unit net income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
COGS/sales (fn1)	88.1	89.5	86.0	▼(2.1)	▲1.4	▼(3.5)
Operating income or (loss)/sales (fn1)	6.5	5.6	7.2	▲0.7	▼(0.9)	▲1.6
Net income or (loss)/sales (fn1)	***	***	***	▲***	▼***	▲***

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). 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.

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.

Total market: Related party exculsion

Table C-3
PET sheet: Summary data concerning the U.S. total market excluding one U.S. producer *, 2017-19**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1):						
Included producers	***	***	***	▼***	▲***	▼***
Excluded producers	***	***	***	▲***	▼***	▲***
All producers	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1):						
Included producers	***	***	***	▼***	▼***	▼***
Excluded producers	***	***	***	▲***	▲***	▼***
All producers	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports from:--						
Korea:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▼***
Oman:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***

Table continued on next page.

Table C-3--Continued
PET sheet: Summary data concerning the U.S. total market excluding one U.S. producer *, 2017-19**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. importers' U.S. shipments of imports from:--Continued						
Subject sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Canada:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***
All other sources:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▼***
Nonsubject:						
Quantity	39,423	44,697	49,697	▲26.1	▲13.4	▲11.2
Value	28,623	34,479	40,491	▲41.5	▲20.5	▲17.4
Unit value	$0.73	$0.77	$0.81	▲12.2	▲6.2	▲5.6
Ending inventory quantity	***	***	***	▼***	▼***	▼***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Included U.S. producers:						
Average capacity quantity	***	***	***	▲***	▲***	▲***
Production quantity	***	***	***	▲***	▲***	▼***
Capacity utilization (fn1)	***	***	***	▼***	▼***	▼***
U.S. shipments:						
Quantity	***	***	***	▲***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Export shipments:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▼***	▲***
Unit value	***	***	***	▼***	▲***	▼***
Ending inventory quantity	***	***	***	▼***	▼***	▲***
Inventories/total shipments (fn1)	***	***	***	▼***	▼***	▲***

Table continued on next page.

Table C-3--Continued
PET sheet: Summary data concerning the U.S. total market excluding one U.S. producer *, 2017-19**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
Included U.S. producers:--Continued						
Production workers	***	***	***	▲***	▲***	▲***
Hours worked (1,000s)	***	***	***	▲***	▲***	▲***
Wages paid ($1,000)	***	***	***	▲***	▲***	▲***
Hourly wages (dollars per hour)	***	***	***	▲***	▲***	▲***
Productivity (pounds per hour)	***	***	***	▲***	▲***	▼***
Unit labor costs	***	***	***	▲***	▲***	▲***
Net sales:						
Quantity	***	***	***	▲***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Cost of goods sold (COGS)	***	***	***	▲***	▲***	▼***
Gross profit or (loss) (fn2)	***	***	***	▼***	▼***	▲***
SG&A expenses	***	***	***	▲***	▲***	▲***
Operating income or (loss) (fn2)	***	***	***	▼***	▼***	▲***
Net income or (loss) (fn2)	***	***	***	▼***	▼***	▲***
Capital expenditures	***	***	***	▲***	▲***	▼***
Research and development expenses	***	***	***	▲***	▲***	▼***
Net assets	***	***	***	▲***	▲***	▲***
Unit COGS	***	***	***	▲***	▲***	▼***
Unit SG&A expenses	***	***	***	▲***	▼***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▼***	▼***	▲***
Unit net income or (loss) (fn2)	***	***	***	▼***	▼***	▲***
COGS/sales (fn1)	***	***	***	▲***	▲***	▼***
Operating income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▲***
Net income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▲***

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). 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.

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.

Merchant market: Related party exclusion

Table C-4
PET sheet: Summary data concerning the U.S. merchant market excluding one U.S. producer *, 2017-19**

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity:						
Amount	***	***	***	▲***	▼***	▲***
Producers' share (fn1):						
Included producers	***	***	***	▼***	▲***	▼***
Excluded producers	***	***	***	▲***	▲***	▲***
All producers	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▼***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▼***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1):						
Included producers	***	***	***	▼***	▼***	▼***
Excluded producers	***	***	***	▲***	▲***	▼***
All producers	***	***	***	▼***	▼***	▼***
Importers' share (fn1):						
Korea	***	***	***	▲***	▲***	▼***
Oman	***	***	***	▲***	▼***	▲***
Subject sources	***	***	***	▲***	▲***	▲***
Canada	***	***	***	▲***	▲***	▲***
All other sources	***	***	***	▼***	▲***	▼***
Nonsubject sources	***	***	***	▲***	▲***	▲***
All import sources	***	***	***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from:--						
Korea:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▼***
Oman:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Subject sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***

Table continued on next page.

Table C-4--Continued

PET sheet: Summary data concerning the U.S. merchant market excluding one U.S. producer *, 2017-19**

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Comparison years		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. importers' U.S. shipments of imports from:--Continued						
Canada:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***
All other sources:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▼***
Nonsubject:						
Quantity	39,423	44,697	49,697	▲26.1	▲13.4	▲11.2
Value	28,623	34,479	40,491	▲41.5	▲20.5	▲17.4
Unit value	$0.73	$0.77	$0.81	▲12.2	▲6.2	▲5.6
Ending inventory quantity	***	***	***	▼***	▼***	▼***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Included U.S. producers:						
Commercial U.S. shipments:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Commercial sales:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▼***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	▼***	▲***	▼***
Gross profit or (loss) (fn2)	***	***	***	▲***	▼***	▲***
SG&A expenses	***	***	***	▲***	▼***	▲***
Operating income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
Net income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
Unit COGS	***	***	***	▲***	▲***	▼***
Unit SG&A expenses	***	***	***	▲***	▼***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
Unit net income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
COGS/sales (fn1)	***	***	***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1)	***	***	***	▲***	▼***	▲***
Net income or (loss)/sales (fn1)	***	***	***	▲***	▼***	▲***

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). 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.

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.

APPENDIX D

NONSUBJECT COUNTRY PRICE DATA

One importer reported price data for Canada for product 1, no importer reported Canadian price data for products 2-4. Price data reported by this firm accounted for *** of U.S. commercial shipments from Canada. This price item and accompanying data are comparable to those presented in table V-3. Price and quantity data for Canada are shown in table D-1 and in figure D-1 (with domestic and subject sources).

In comparing Canadian pricing data with U.S. producer pricing data, prices for product imported from Canada were higher than prices for U.S.-produced product in all 12 instances. In comparing Canadian pricing data with subject country pricing data, prices for product imported from Canada were higher than prices for product imported from subject countries in all 8 instances for Korea and in all 12 instances for Oman. A summary of price differentials is presented in table D-2.

Table D-1
PET sheet: Weighted-average f.o.b. prices and quantities of imported product 1, by quarters, 2017-19

Period	United States		Canada	
	Price (dollars per pound)	Quantity (thousand pounds)	Price (dollars per pound)	Quantity (thousand pounds)
2017:				
Jan.-Mar.	***	***	***	***
Apr.-Jun.	***	***	***	***
Jul.-Sep.	***	***	***	***
Oct.-Dec.	***	***	***	***
2018:				
Jan.-Mar.	***	***	***	***
Apr.-Jun.	***	***	***	***
Jul.-Sep.	***	***	***	***
Oct.-Dec.	***	***	***	***
2019:				
Jan.-Mar.	***	***	***	***
Apr.-Jun.	***	***	***	***
Jul.-Sep.	***	***	***	***
Oct.-Dec.	***	***	***	***

Note: Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure D-1
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarters, 2017-19

* * * * * * *

Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table D-2
PET sheet: Summary of (overselling), by country, 2017-19

Comparison	Total number of comparisons	Canada higher than the comparison source	
		Number of quarters	Quantity (thousand pounds)
Nonsubject vs United States:			
Canada vs. United States	12	12	***
Nonsubject vs subject countries:			
Canada vs. Korea	8	8	***
Canada vs. Oman	12	12	***

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

APPENDIX E

PRICE DATA EXCLUDING U.S. PRODUCER OCTAL EXTRUSIONS

Price data in this appendix excludes price data reported by U.S. producer OCTAL Extrusion; it is otherwise comparable to the price data in tables V-3 to V-6 and figures V-1 to V-4. Pricing data reported by the remaining eight firms accounted for approximately *** percent of U.S. producers' shipments of PET sheet, *** percent of U.S. shipments of subject imports from Korea, and *** percent of U.S. shipments of subject imports from Oman in 2019.[1]

Price data for products 1-4 are presented in tables E-1 to E-4 and figures E-1 to E-4.

[1] Importer ***.

Table E-1
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), excluding OCTAL Extrusion, by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017:								
Jan.-Mar.	0.75	12,357	***	***	***	***	***	***
Apr.-June	0.73	15,559	--	0	--	***	***	***
July-Sept.	0.75	12,285	***	***	***	***	***	***
Oct.-Dec.	0.82	10,446	--	0	--	***	***	***
2018:								
Jan.-Mar.	0.86	9,026	***	***	***	***	***	***
Apr.-June	0.89	11,016	--	0	--	***	***	***
July-Sept.	0.98	14,006	***	***	***	***	***	***
Oct.-Dec.	0.85	9,689	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.78	8,192	--	0	--	***	***	***
Apr.-June	0.77	11,192	***	***	***	***	***	***
July-Sept.	0.78	12,876	***	***	***	***	***	***
Oct.-Dec.	0.77	9,900	***	***	***	***	***	***

Note: Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table E-2
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), excluding OCTAL Extrusion, by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017: Jan.-Mar.	***	***	--	0	--	***	***	***
Apr.-June	***	***	--	0	--	***	***	***
July-Sept.	***	***	--	0	--	***	***	***
Oct.-Dec.	***	***	--	0	--	***	***	***
2018: Jan.-Mar.	***	***	--	0	--	***	***	***
Apr.-June	***	***	--	0	--	***	***	***
July-Sept.	***	***	--	0	--	***	***	***
Oct.-Dec.	***	***	--	0	--	***	***	***
2019: Jan.-Mar.	***	***	--	0	--	***	***	***
Apr.-June	0.82	4,838	--	0	--	***	***	***
July-Sept.	0.81	4,638	***	***	***	***	***	***
Oct.-Dec.	0.78	3,100	***	***	***	***	***	***

Note: Product 2: PET sheet, single layer, thickness of 0.031”-0.045”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table E-2
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), excluding OCTAL Extrusion, by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017:								
Jan.-Mar.	0.71	2,659	--	0	--	***	***	***
Apr.-June	0.73	2,862	--	0	--	***	***	***
July-Sept.	0.71	3,694	***	***	***	***	***	***
Oct.-Dec.	0.77	4,074	***	***	***	***	***	***
2018:								
Jan.-Mar.	0.77	2,626	--	0	--	***	***	***
Apr.-June	0.76	2,176	***	***	***	***	***	***
July-Sept.	0.76	3,252	***	***	***	***	***	***
Oct.-Dec.	0.78	2,249	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.70	2,060	--	0	--	***	***	***
Apr.-June	0.83	2,437	--	0	--	***	***	***
July-Sept.	0.78	2,839	--	0	--	***	***	***
Oct.-Dec.	0.73	2,858	***	***	***	***	***	***

Note: Product 3: PET sheet, single layer, thickness of 0.012”-0.030”, black, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Table E-4
PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), excluding OCTAL Extrusion, by quarter, 2017-19

Period	United States		Korea			Oman		
	Price (per pound)	Quantity (thousand pounds)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)	Price (per pound)	Quantity (thousand pounds)	Margin (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***

Note: Product 4: PET sheet, three-layer coextruded, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure E-1
PET sheet: Weighted-average prices and quantities of domestic and imported product 1, excluding OCTAL Extrusion, by quarter, 2017-19

* * * * * * *

Product 1: PET sheet, single layer, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure E-2
PET sheet: Weighted-average prices and quantities of domestic and imported product 2, excluding OCTAL Extrusion, by quarter, 2017-19

* * * * * * *

Product 2: PET sheet, single layer, thickness of 0.031”-0.045”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure E-3
PET sheet: Weighted-average prices and quantities of domestic and imported product 3, excluding OCTAL Extrusion, by quarter, 2017-19

* * * * * * *

Product 3: PET sheet, single layer, thickness of 0.012”-0.030”, black, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating.

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

Figure E-4
PET sheet: Weighted-average prices and quantities of domestic and imported product 4, excluding OCTAL Extrusion, by quarter, 2017-19

* * * * * * *

Product 4: PET sheet, three-layer coextruded, thickness of 0.012”-0.030”, clear/transparent, 20-53” roll width, standard roll diameter, with silicon coating, without anti-static or anti-fog coating

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

Price trends

In general, prices increased or decreased slightly during 2017-19. Table E-7 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent during 2017-19. Korea import price increases ranged from *** and *** percent while Korean import prices decreased by *** percent for one product. Oman import prices increases ranged from *** to ***, but for one product, Oman prices decreased by *** percent.

Table E-5
PET sheet: Summary of weighted-average f.o.b. prices for products 1-4 from the United States, excluding OCTAL Extrusion, Korea, and Oman

Item	Number of quarters	Low price (per pound)	High price (per pound)	Change in price (percent)
Product 1				
United States	12	***	***	***
Korea	8	***	***	***
Oman	12	***	***	***
Product 2				
United States	12	***	***	***
Korea	2	***	***	***
Oman	12	***	***	***
Product 3				
United States	12	***	***	***
Korea	6	***	***	***
Oman	12	***	***	***
Product 4				
United States	12	***	***	***
Korea	12	***	***	***
Oman	12	***	***	***

Note: Percentage change from the first quarter in which data were available to the last quarter in which price data were available. Changes are not reported for Korean product 2 because price data were only available for two quarters, price was unchanged.

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

Price comparisons

As shown in table E-6, prices for product imported from Korea were below those for U.S.-produced product in all 28 instances (*** pounds); margins of underselling ranged from *** to *** percent. Prices for product imported from Oman were below those for U.S. produced product in 46 of 48 instances (*** pounds); margins of underselling ranged from ***

to *** percent. In the remaining two instances (*** pounds), prices for product from Oman were between *** and *** percent above prices for the domestic product.

Table E-6
PET sheet: Instances of underselling/overselling and the range and average of margins, by product and country, excluding OCTAL Extrusion, 2017-19

Source	Underselling				
	Number of quarters	Quantity (1,000 pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	20	***	***	***	***
Product 2	14	***	***	***	***
Product 3	16	***	***	***	***
Product 4	24	***	***	***	***
Total, underselling	74	***	***	***	***
Korea	28	***	***	***	***
Oman	46	***	***	***	***
Total, underselling	74	***	16.6	1.2	31.9
Source	**(Overselling)**				
	Number of quarters	**Quantity (1,000 pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 3	2	***	***	***	***
Oman	2	***	***	***	***
Total, overselling	2	***	***	***	***

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.

APPENDIX F

MERCHANT MARKET FINANCIAL DATA

Table F-1
PET sheet: Results of operations of U.S. producers, merchant market, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Commercial sales	327,660	333,423	302,996
	Value (1,000 dollars)		
Commercial sales	357,291	385,058	341,728
Cost of goods sold.-- Raw materials	238,892	268,175	219,342
Direct labor	25,825	24,867	21,132
Other factory costs	50,070	51,422	53,401
Total COGS	314,787	344,463	293,876
Gross profit	42,504	40,595	47,852
SG&A expense	19,192	19,025	23,282
Operating income or (loss)	23,312	21,570	24,570
Other expenses/(income), net	***	***	***
Net income or (loss)	***	***	***
Depreciation/amortization	7,940	9,205	8,821
Cash flow	27,666	27,164	30,715
	Ratio to net sales (percent)		
Cost of goods sold.-- Raw materials	66.9	69.6	64.2
Direct labor	7.2	6.5	6.2
Other factory costs	14.0	13.4	15.6
Average COGS	88.1	89.5	86.0
Gross profit	11.9	10.5	14.0
SG&A expense	5.4	4.9	6.8
Operating income or (loss)	6.5	5.6	7.2
Net income or (loss)	***	***	***

Table continued on next page.

Table F-1 – Continued
PET sheet: Results of operations of U.S. producers, merchant market, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Ratio to total COGS (percent)		
Cost of goods sold.-- Raw materials	75.9	77.9	74.6
Direct labor	8.2	7.2	7.2
Other factory costs	15.9	14.9	18.2
Average COGS	100.0	100.0	100.0
	Unit value (dollars per pound)		
Commercial sales	1.09	1.15	1.13
Cost of goods sold.-- Raw materials	0.73	0.80	0.72
Direct labor	0.08	0.07	0.07
Other factory costs	0.15	0.15	0.18
Average COGS	0.96	1.03	0.97
Gross profit	0.13	0.12	0.16
SG&A expense	0.06	0.06	0.08
Operating income or (loss)	0.07	0.06	0.08
Net income or (loss)	***	***	***
	Number of firms reporting		
Operating losses	10	10	9
Net losses	10	10	10
Data	13	13	13

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

Table F-2
PET sheet: Changes in AUVs, merchant market, between fiscal years

Item	Between fiscal years		
	2017-19	2017-18	2018-19
	Change in AUVs (percent)		
Commercial sales	▲3.4	▲5.9	▼(2.3)
Cost of goods sold.-- Raw materials	▼(0.7)	▲10.3	▼(10.0)
Direct labor	▼(11.5)	▼(5.4)	▼(6.5)
Other factory costs	▲15.3	▲0.9	▲14.3
Average COGS	▲1.0	▲7.5	▼(6.1)
	Change in AUVs (dollars per pound)		
Commercial sales	▲0.04	▲0.06	▼(0.03)
Cost of goods sold.-- Raw materials	▼(0.01)	▲0.08	▼(0.08)
Direct labor	▼(0.01)	▼(0.004)	▼(0.005)
Other factory costs	▲0.02	▲0.001	▲0.02
Average COGS	▲0.01	▲0.07	▼(0.06)
Gross profit	▲0.03	▼(0.01)	▲0.04
SG&A expense	▲0.02	▼(0.002)	▲0.02
Operating income or (loss)	▲0.01	▼(0.01)	▲0.02
Net income or (loss)	***	***	***

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

Table F-3
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Total net sales (1,000 pounds)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	327,660	333,423	302,996
	Total net sales (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	357,291	385,058	341,728

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Cost of goods sold (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	314,787	344,463	293,876
	Gross profit or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	42,504	40,595	47,852

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	SG&A expenses (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	19,192	19,025	23,282
	Operating income or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	23,312	21,570	24,570

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Net income or (loss) (1,000 dollars)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	***	***	***
	COGS to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	88.1	89.5	86.0

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Gross profit or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	11.9	10.5	14.0
	SG&A expense to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	5.4	4.9	6.8

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Operating income or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	6.5	5.6	7.2
	Net income or (loss) to net sales ratio (percent)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	***	***	***

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit net sales value (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	1.09	1.15	1.13
	Unit raw materials (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.73	0.80	0.72

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit direct labor (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.08	0.07	0.07
	Unit other factory costs (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.15	0.15	0.18

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit COGS (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.96	1.03	0.97
	Unit gross profit or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.13	0.12	0.16

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit SG&A expenses (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.06	0.06	0.08
	Unit operating income or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	0.07	0.06	0.08

Table continued on next page.

Table F-3--Continued
PET sheet: Select results of operations of U.S. producers, merchant market, by company, 2017-19

Item	Fiscal year		
	2017	2018	2019
	Unit net income or (loss) (dollars per pound)		
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Pure merchant firms	***	***	***
Integrated firms selling into merchant market	***	***	***
All firms excluding ***	***	***	***
All firms	***	***	***

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

APPENDIX G

FINANCIAL DATA EXCLUDING ***

Table G-1
PET sheet: Results of operations of U.S. producers, excluding one U.S. producer *, 2017-19**

Item	Fiscal year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	***	***	***
	Value (1,000 dollars)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Interest expense	***	***	***
All other expenses	***	***	***
All other income	***	***	***
Net income or (loss)	***	***	***
Depreciation/amortization	***	***	***
Cash flow	***	***	***
	Ratio to net sales (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

Table continued on next page.

Table G-1–Continued
PET sheet: Results of operations of U.S. producers, excluding one U.S. producer *, 2017-19**

Item	Fiscal year		
	2017	2018	2019
	Ratio to total COGS (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
	Unit value (dollars per pound)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***
	Number of firms reporting		
Operating losses	***	***	***
Net losses	***	***	***
Data	***	***	***

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

Table G-2
PET sheet: Results of merchant market operations of U.S. producers, excluding one U.S. producer *, 2017-19**

Item	Fiscal year		
	2017	2018	2019
	Quantity (1,000 pounds)		
Commercial sales	***	***	***
	Value (1,000 dollars)		
Commercial sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Interest expense	***	***	***
All other expenses	***	***	***
All other income	***	***	***
Net income or (loss)	***	***	***
Depreciation/amortization	***	***	***
Cash flow	***	***	***
	Ratio to net sales (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

Table continued on next page.

Table G-2–Continued
PET sheet: Results of merchant market operations of U.S. producers, excluding one U.S. producer *, 2017-19**

Item	Fiscal year		
	2017	2018	2019
	Ratio to total COGS (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
	Unit value (dollars per pound)		
Commercial sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Average COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***
	Number of firms reporting		
Operating losses	***	***	***
Net losses	***	***	***
Data	***	***	***

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