

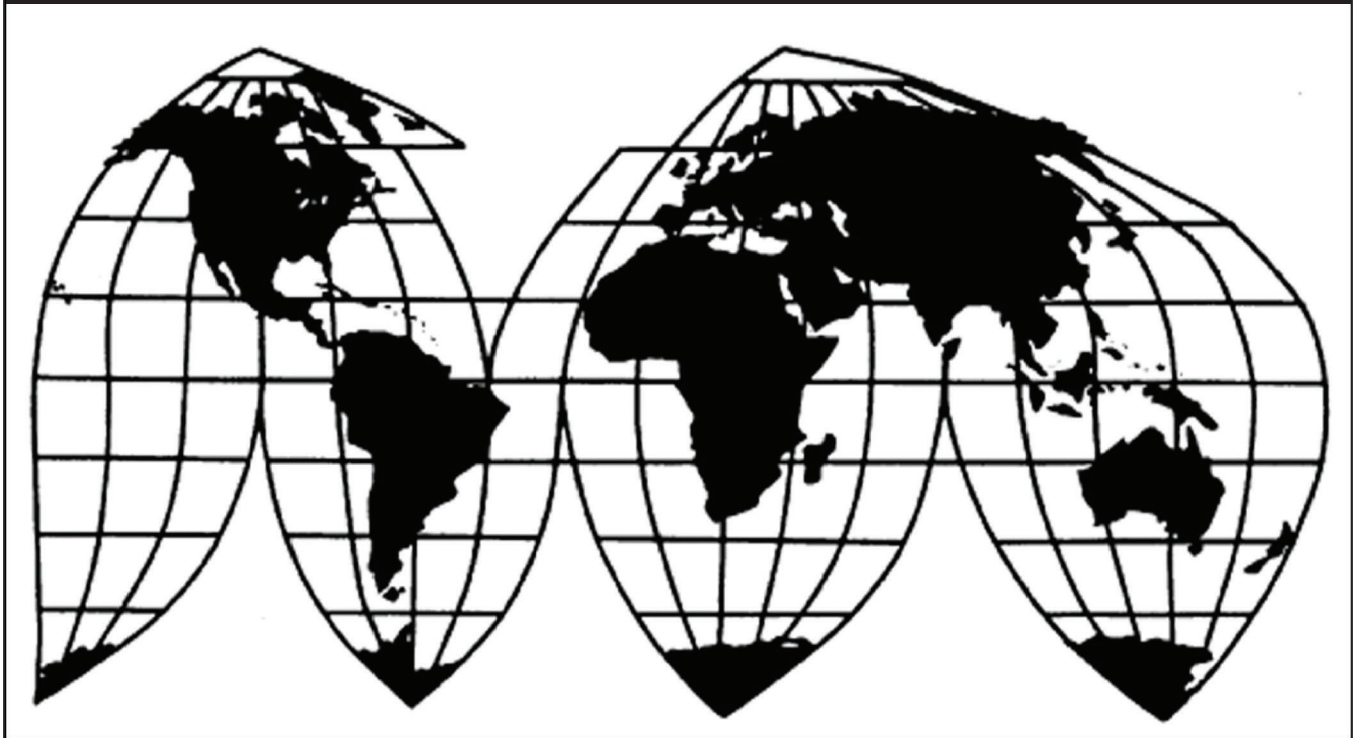
Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman

Investigation Nos. 731-TA-1455-1457 (Preliminary)

Publication 4970

September 2019

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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CONTENTS

	Page
Determinations	1
Views of the Commission	3
Part I: Introduction	I-1
Background.....	I-1
Statutory criteria and organization of the report	I-2
Statutory criteria	I-2
Organization of report.....	I-3
Market summary	I-3
Summary data and data sources.....	I-4
Previous and related investigations	I-4
Nature and extent of alleged sales at LTFV.....	I-5
Alleged sales at LTFV	I-5
The subject merchandise	I-5
Commerce’s scope	I-5
Tariff treatment.....	I-5
The product	I-6
Description and applications	I-6
Manufacturing processes	I-7
Domestic like product issues.....	I-9
Part II: Conditions of competition in the U.S. market	II-1
U.S. market characteristics.....	II-1
Channels of distribution	II-1
Geographic distribution	II-1
Supply and demand considerations.....	II-2
U.S. supply	II-2
U.S. demand	II-5
Substitutability issues.....	II-7

CONTENTS

	Page
Lead times	II-7
Factors affecting purchasing decisions.....	II-7
Comparison of U.S.-produced and imported PET sheet	II-8
Part III: U.S. producers' production, shipments, and employment.....	III-1
U.S. producers	III-1
U.S. production, capacity, and capacity utilization	III-4
Alternative products.....	III-10
U.S. producers' U.S. shipments and exports.....	III-10
U.S. producers' inventories	III-12
U.S. producers' imports and purchases	III-12
U.S. employment, wages, and productivity	III-13
Captive consumption	III-14
Transfers and sales	III-14
First statutory criterion in captive consumption.....	III-15
Second statutory criterion in captive consumption.....	III-15
Part IV: U.S. imports, apparent U.S. consumption, and market shares.....	IV-1
U.S. importers.....	IV-1
U.S. imports.....	IV-2
Negligibility.....	IV-6
Cumulation considerations	IV-7
Geographical markets	IV-8
Presence in the market	IV-8
Apparent U.S. consumption and U.S. market shares for total market.....	IV-9
Apparent U.S. consumption and U.S. market shares for Merchant market.....	IV-11
Part V: Pricing data.....	V-1
Factors affecting prices	V-1
Raw material costs	V-1
U.S. inland transportation costs	V-1

CONTENTS

	Page
Pricing practices	V-1
Pricing methods.....	V-1
Sales terms and discounts	V-2
Price data.....	V-3
Price trends.....	V-5
Price comparisons	V-6
Lost sales and lost revenue	V-8
PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS	VI-1
Instruction	VI-1
Operations on PET sheet.....	VI-1
Net sales	VI-1
Cost of goods sold and gross profit or (loss)	VI-2
Selling, general, and administrative expenses and operating income.....	VI-3
All other expenses and net income or (loss).....	VI-3
Variance analysis	VI-4
Capital expenditures and research and development expenses.....	VI-4
Assets and return on assets	VI-4
Capital and investment	VI-5
Part VII: Threat considerations and information on nonsubject countries	VII-1
The industry in Korea	VII-3
Changes in operations	VII-3
Operations on PET sheet.....	VII-3
Alternative products.....	VII-4
Exports.....	VII-4
The industry in Mexico	VII-6
Changes in operations	VII-6
Operations on PET sheet.....	VII-7
Alternative products.....	VII-9

CONTENTS

	Page
Exports.....	VII-9
The industry in Oman.....	VII-11
Changes in operations.....	VII-11
Operations on PET sheet.....	VII-11
Alternative products.....	VII-12
Exports.....	VII-12
Subject countries combined.....	VII-13
U.S. inventories of imported merchandise.....	VII-14
U.S. importers' outstanding orders.....	VII-15
Antidumping or countervailing duty orders in third-country markets.....	VII-15
Information on nonsubject countries.....	VII-15
Global capacity, production, and shipments.....	VII-15
Appendixes	
A. <i>Federal Register</i> notices.....	A-1
B. List of staff conference witnesses.....	B-1
C. Summary data.....	C-1
D. Merchant Market Financial Data.....	D-1

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-1455-1457 (Preliminary)
Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman

DETERMINATIONS

On the basis of the record¹ developed in the subject investigations, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of Polyethylene Terephthalate (PET) sheet from Oman and Korea, provided for in subheading 3920.62.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (“LTFV”).² The Commission further determines that imports of PET sheet from Mexico that are alleged to be sold in the United States at LTFV are negligible pursuant to section 771(24) of the Act, and its antidumping duty investigation with regard to PET sheet from Mexico is thereby terminated pursuant to section 703(a)(1) of the Act.³

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission’s rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in section 207.21 of the Commission’s rules, upon notice from the U.S. Department of Commerce (“Commerce”) of affirmative preliminary determinations in the investigations under section 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under section 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

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

² *Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 84 FR 44854, August 27, 2019.

³ Commissioner Randolph J. Stayin voted in the affirmative with respect to all investigations.

BACKGROUND

On July 9, 2019, Advanced Extrusion, Inc., Rogers, Minnesota; Ex-Tech Plastics, Inc., Richmond, Illinois; and Multi-Plastics Extrusions, Inc., Hazleton, Pennsylvania, filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of PET sheet from Korea, Mexico, and Oman. Accordingly, effective July 9, 2019, the Commission, pursuant to section 733(a) of the Act (19 U.S.C. 1673b(a)), instituted antidumping duty investigation Nos. 731-TA-1455-1457 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference 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 July 15, 2019 (84 FR 33785). The conference was held in Washington, DC, on July 30, 2019, and all persons who requested the opportunity were permitted to appear in person or by counsel. A revised schedule was published on August 6, 2019 (84 FR 38296).

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of polyethylene terephthalate (“PET”) sheet from Korea and Oman that are allegedly sold in the United States at less than fair value (“LTFV”). We find that imports of PET sheet from Mexico that are allegedly sold in the United States at LTFV are negligible and accordingly terminate the investigation with respect to subject imports of PET sheet from Mexico.¹

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determinations, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of the allegedly unfairly traded imports.² In applying this standard, the Commission weighs the evidence before it and determines whether “(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation.”³

II. Background

The petitions in these investigations were filed on July 9, 2019, by Advanced Extrusion, Inc. (“Advanced Extrusion”), Ex-Tech Plastics, Inc. (“Ex-Tech Plastics”), and Multi-Plastics Extrusions, Inc. (“Multi-Plastics Extrusions”) (collectively, “Petitioners”).⁴ Petitioners are U.S. producers of PET sheet. Petitioners appeared at the staff conference with counsel and jointly submitted a postconference brief.

Several respondent entities participated in the preliminary of these investigations. OCTAL SAOC-FZC Inc. (“OCTAL Oman”), a producer/exporter of subject merchandise from Oman, and OCTAL, Inc., an importer of subject merchandise (collectively, “OCTAL”), appeared

¹ Commissioner Randolph J. Stayin dissenting regarding Mexico. He determines that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of PET sheet from Korea, Mexico, and Oman that are allegedly sold in the United States at LTFV. He joins the majority views except as otherwise noted.

² 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States*, 20 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

³ *American Lamb Co.*, 785 F.2d at 1001; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

⁴ Confidential Report (“CR”), Memorandum INV-RR-083 (Aug. 30, 2019) at I-2, Public Report (“PR”) at I-3.

at the conference with counsel and submitted a postconference brief.⁵ Two producers and exporters of subject merchandise from Mexico – Evertis de México S.A. de C.V. (“Evertis”) and Inter Plas Industries, SA de CV (“Inter Plas”) – submitted postconference briefs.

U.S. industry data are based on questionnaire responses of 22 firms that accounted for 76.4 percent of U.S. production of PET sheet during 2018.⁶ U.S. import data are based on questionnaire responses from 12 U.S. importers supplemented by ***. The questionnaire responses accounted for *** percent of total U.S. imports from all sources in 2018 under HTS subheading 3920.62.0090,⁷ and *** percent of imports from Korea, *** percent of imports from Mexico, *** percent of imports from Oman, and *** percent of imports from all other sources under this basket category.⁸ The Commission received usable responses to its questionnaires from five foreign producers of subject merchandise: one producer/exporter in Korea, whose production accounted for approximately *** percent of PET sheet production in Korea in 2018 and whose exports accounted for approximately *** percent of U.S. imports of subject merchandise from Korea in 2018;⁹ three producers/exporters in Mexico, whose production accounted for approximately *** percent of PET sheet production in Mexico in 2018 and whose exports accounted for approximately *** percent of U.S. imports of subject merchandise from Mexico in 2018;¹⁰ and one producer/exporter in Oman, whose production accounted for approximately *** percent of PET sheet production in Oman in 2018 and whose exports accounted for approximately *** percent of U.S. imports of subject merchandise from Oman in 2018.¹¹

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the “domestic like product” and the “industry.”¹² 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

⁵ CR at I-4, PR at I-1.

⁶ CR at I-5, PR at I-4.

⁷ It is undisputed that HTS subheading 3920.62.0090 is a basket category that includes both in-scope PET sheet and out-of-scope product (*e.g.*, PET film). CR at I-6 & n.11, PR at I-4 & n.11. There is evidence in the current record indicating that this basket category includes substantial quantities of out-of-scope product. For example, based on *** data, U.S. importers accounting for *** percent of total 2018 imports from Mexico under HTS number 3920.62.0090 certified in their questionnaire responses to the Commission that they did not import in-scope PET sheet into the United States during the period of investigation. CR/PR at Table IV-6.

⁸ CR/PR at IV-1; CR at I-5-6, PR at I-4

⁹ CR/PR at VII-3.

¹⁰ CR at VII-7-8, PR at VII-6.

¹¹ CR at VII-14, PR at VII-11.

¹² 19 U.S.C. § 1677(4)(A).

proportion of the total domestic production of the product.”¹³ 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.”¹⁴

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.¹⁵ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.¹⁶ The Commission looks for clear dividing lines among possible like products and disregards minor variations.¹⁷ Although the Commission must accept the Department of Commerce’s (“Commerce’s”) determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value,¹⁸ the Commission determines what domestic product is like the imported articles Commerce has identified.¹⁹ The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.²⁰

¹³ 19 U.S.C. § 1677(4)(A).

¹⁴ 19 U.S.C. § 1677(10).

¹⁵ 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).

¹⁶ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

¹⁷ See, e.g., *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.”).

¹⁸ 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).

¹⁹ *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); *Cleo*, 501 F.3d at 1298 n.1 (“Commerce’s {scope} finding does not control the Commission’s {like product} determination.”); *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).

²⁰ See, e.g., *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington*, 747 F. Supp. at 748-49 (holding that the (Continued...))

In its notices of initiation, Commerce defined the imported merchandise within the scope of these investigations as:

PET sheet covered by these investigations is raw, pretreated, or primed polyethylene terephthalate sheet, whether extruded or coextruded, 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) (“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.

PET sheet is currently imported under statistical reporting number 3920.62.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). The HTSUS provisions are for convenience and customs purposes; the written description of the scope is dispositive.²¹

PET sheet is formed from PET resin, which is often sold in the form of pellets or chips.²² The primary end use is a wide variety of food, beverage, and retail packaging, such as food trays and containers, carry-out containers, paint tray liners, and consumer packaging.²³

A. Arguments of the Parties

Petitioners’ Arguments. Petitioners argue that the Commission should define a single domestic like product consisting of all PET sheet coextensive with the scope of these investigations.²⁴ They contend that an examination of the Commission’s traditional six-factor test demonstrates that all PET sheet within the scope comprises a single domestic like product with no clear dividing lines.²⁵

(...Continued)

Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

²¹ *Polyethylene Terephthalate Sheet from Korea, Mexico, and the Sultanate of Oman*, 84 Fed. Reg. 44854 (Aug. 27, 2019) (initiation of less than fair value investigations). Commerce extended the deadline for its initiation determinations, from July 29, 2019 to August 19, 2019, in order to gather and analyze additional information regarding industry support. On August 19, 2019, Commerce determined there was sufficient domestic industry support for the petitions and initiated the antidumping duty investigations. CR at I-2 n.4, PR at I-1 n.4.

²² CR at I-8, PR at I-6.

²³ CR at I-8, PR at I-6.

²⁴ Petitioners’ Postconf. Br. at 3-6.

²⁵ Petitioners’ Postconf. Br. at 3.

Respondents' Arguments. Respondents agree with Petitioners' proposed definition of the domestic like product for purposes of the preliminary phase of these investigations.²⁶

B. Analysis

Based on the current record, we define a single domestic like product consisting of all PET sheet, coextensive with the scope of these investigations.

Physical Characteristics and Uses. PET sheet is a thermoplastic polyester polymer flat-rolled sheet product.²⁷ PET sheet is produced from PET resin, which is manufactured from purified terephthalic acid and monoethylene glycol.²⁸ It typically is produced in thicknesses ranging from 0.007 inches to 0.045 inches.²⁹ The major end uses for PET sheet are food, beverage, and retail packaging, including 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, bottle preforms, drinking cups, medical trays, paint tray liners, consumer packaging, and packaging for electro static sensitive devices (such as integrated computer circuits).³⁰ PET sheet is used in food and retail packaging because it has exceptional visual properties (such as clarity and gloss), provides barriers to gasses, odors, fat, grease, and oil, and is lightweight, impact- and tear-resistant, thermally stable, and recyclable.³¹

Manufacturing Facilities, Production Processes, and Employees. Domestically produced PET sheet is manufactured through an extrusion process, using virgin PET resin ("APET"), recycled PET resin ("RPET"), or a blend of APET and RPET inputs.³² Certain additives or coatings may be used in the production of PET sheet before or after extrusion in order to provide additional characteristics such as color, anti-static properties, and anti-fog properties, as required for the end-use application.³³ After extrusion, PET sheet is conveyed onto cooling rollers, inspected, trimmed to width, and wound by spindle into a roll.³⁴ According to Petitioners, all domestically produced PET sheet corresponding to the scope is manufactured

²⁶ OCTAL's Postconf. Br. at 18 n.28; Transcript of Conference ("Conf. Tr.") at 11 (Porter).

²⁷ CR at I-10-11, PR at I-7-8; Conf. Tr. at 15 (Grayczyk).

²⁸ CR at I-10-11, PR at I-7-8; Conf. Tr. at 15-16 (Grayczyk).

²⁹ Petitioners' Postconf. Br. at 4-5; Conf. Tr. at 16 (Grayczyk).

³⁰ CR at I-8, PR at I-6.

³¹ CR at I-8, PR at I-6.

³² CR at I-11-13, PR at I-8-9; CR/PR at V-1; Petitioners' Postconf. Br. at 4-5; Conf. Tr. at 32 (Debode). PET sheet is produced through an extrusion process in which PET sheet inputs are melted and then pushed through a die at a controlled thickness and flow rate into a flat sheet. Conf. Tr. at 16 (Grayczyk). One or more extruders can be used to supply different melt streams to the die by a process called coextrusion. *Id.* Additives such as color or silicon may also be introduced before extrusion or after extrusion through satellite extruders. *Id.*

³³ See *e.g.*, Petition at 5; Conf. Tr. at 16 (Grayczyk).

³⁴ CR at I-12-13, PR at I-8.

using the same type of equipment (*e.g.*, extruder, dryer, and regrind machinery) at the same facilities by the same employees.³⁵

Channels of Distribution. During the period of investigation (January 2016-March 2019) (“POI”), domestic producers sold the *** majority of PET sheet (ranging from *** percent to *** percent of their U.S. commercial shipments) to the same channel, end users.³⁶

Interchangeability. According to Petitioners, all domestically produced PET sheet within the scope is generally interchangeable regardless of differences in thickness and/or additives.³⁷

Producer and Customer Perceptions. The record contains limited information concerning this factor. At the conference, a witness testifying on behalf of the domestic industry stated that customers and producers perceive all domestically produced PET sheet within the scope as comprising a single product category.³⁸

Price. Petitioners assert that domestically produced PET sheet is sold within a range of similar prices.³⁹ The pricing product data confirm that the domestic industry’s prices for the four pricing products are roughly comparable.⁴⁰

Conclusion. The information available in the preliminary phase of these investigations shows that PET sheet products produced in the United States use the same basic chemistry, raw materials, and manufacturing facilities and production processes, and have the same range of end uses. These products are sold through the same channels of distribution, are largely interchangeable, and are sold at roughly comparable prices. In view of the foregoing, and in the absence of any argument to the contrary, we define a single domestic like product consisting of all PET sheet coextensive with the scope of these investigations.

IV. Domestic Industry and Related Parties

The domestic industry is defined as the domestic “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”⁴¹ 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

³⁵ Petitioners’ Postconf. Br. at 4-5.

³⁶ CR/PR at Table II-1.

³⁷ Petitioners’ Postconf. Br. at 5; Conf. Tr. at 17-18 (Grayczyk) & 34 (Ringel).

³⁸ Petitioners’ Postconf. Br. at 6; Conf. Tr. at 17-18, 81 (Grayczyk).

³⁹ Petitioners’ Postconf. Br. at 6.

⁴⁰ CR/PR at Tables V-3-6.

⁴¹ 19 U.S.C. § 1677(4)(A).

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.⁴² Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.⁴³

The record indicates that four domestic producers qualify as related parties in the preliminary phase of these investigations. Three domestic producers (***) are related parties because they each imported subject merchandise during the period of investigation.⁴⁴ A fourth domestic producer, ***, is a related party because it is affiliated both with an *** producer/exporter of subject merchandise and with a U.S. importer of subject merchandise.⁴⁵ Petitioners contend that it is appropriate to exclude *** from the definition of the domestic industry as a related party because *** relationships with its affiliates provided it access to subject imports and that it therefore derived a significant benefit from these relationships.⁴⁶ Petitioners do not argue for exclusion of any other related party.⁴⁷ *** from the domestic industry, claiming that *** primary interest was exclusively in domestic production throughout the period of investigation while its affiliate imported subject merchandise.⁴⁸

Analysis. We examine below for each of the 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 2018.⁴⁹ As such, it is the *** largest of the *** reporting domestic producers.⁵⁰ It *** the petitions.⁵¹ Its

⁴² 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).

⁴³ The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

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

⁴⁴ CR/PR at Table III-8; CR at III-17, PR at III-12.

⁴⁵ 19 U.S.C. § 1677(4)(B)(ii)(III); CR/PR at Table III-8. *** See, e.g., *** at I-5 & I-6; *** U.S. Importers' Questionnaire at I-2 & I-3; *** Foreign Producers'/Exporters' Questionnaire at I-3 & I-4.

⁴⁶ Petitioners' Postconf. Br. at 10-11.

⁴⁷ Petitioners' Postconf. Br. at 6.

⁴⁸ OCTAL's Postconf. Br. at 7-8.

⁴⁹ CR/PR at Table III-1.

⁵⁰ CR/PR at Table III-1.

imports of subject merchandise were *** pounds in 2016, *** pounds in 2017, *** pounds in 2018, and *** pounds in January-March 2018 (“interim 2018”).⁵² It *** in January-March 2019 (“interim 2019”).⁵³ *** indicated that its imports were ***.⁵⁴ The ratio of its subject imports to U.S. production was *** percent in 2016, *** percent in 2017, *** percent in 2018, and *** percent in interim 2018.⁵⁵ Consequently, its primary interest appears to be in domestic production. Its operating income margin was *** the industry average throughout the period of investigation.⁵⁶ Because *** domestic production *** exceeded its subject imports, its domestic production operations do not appear to benefit from subject imports, and no party has argued for its exclusion from the domestic industry, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.

***. Although *** did not submit a U.S. producer questionnaire, there is information in the record indicating that in 2018 its imports of subject merchandise were *** pounds and its U.S. production of PET sheet was *** pounds in 2018.⁵⁷ Given that *** did not provide a domestic producer questionnaire response, however, there are no data to exclude for this producer. Therefore, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.

***. *** was responsible for *** percent of U.S. production of PET sheet in 2018,⁵⁸ making it the *** largest of the *** reporting domestic producers.⁵⁹ It *** the petition ***.⁶⁰ Imports of subject merchandise by *** were *** pounds in 2016, *** pounds in 2017, *** pounds in 2018, *** pounds in interim 2018, and *** pounds in interim 2019.⁶¹ *** indicated that its imports were necessary ***.⁶²

At the conference, the President of OCTAL-Cincinnati, Mr. William J. Barenberg, testified that he was also the Chief Operating Officer of OCTAL, Inc.⁶³ Mr. Barenberg also explained at the conference that OCTAL-Cincinnati was established by OCTAL Oman for the purpose of sourcing scrap raw materials for its recycled PET sheet production in the United States from

(...Continued)

⁵¹ CR/PR at Table III-1.

⁵² CR/PR at Table III-8.

⁵³ CR/PR at Table III-8.

⁵⁴ CR/PR at Table III-8.

⁵⁵ CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2016, *** pounds in 2017, *** pounds in 2018, *** pounds in interim 2018, and *** pounds in interim 2019. *Id.*

⁵⁶ CR/PR at Appendix D-3. *** operating income margin was *** percent in 2016, *** percent in 2017, *** *Id.*

⁵⁷ See *** U.S. Importer Questionnaire at II-5a & II-6a & email from *** to USITC Investigator on August 13, 2019.

⁵⁸ CR/PR at Table III-1.

⁵⁹ CR/PR at Table III-1.

⁶⁰ CR/PR at Table III-1.

⁶¹ CR/PR at Table III-8.

⁶² CR/PR at Table III-8; *** U.S. Importers’ Questionnaire at II-4.

⁶³ Conf. Tr. at 93-94 (Barenberg).

OCTAL Oman’s customers.⁶⁴ Further, according to Mr. Barenberg, while *** produces PET sheet, it “focuses on different parts of the U.S. market” than OCTAL Oman and they do not compete with one another.⁶⁵

There is information in the record suggesting that *** may have benefited from the corporate relationships with its affiliates. Unlike most other producers, its capacity utilization *** during the period of investigation, *** from *** percent in 2016 to *** percent in 2017 and 2018, which was *** the industry average in the last two full years of the POI, while its production and share of U.S. production *** over the same period.⁶⁶ Moreover, the ratio of its affiliate’s subject imports to *** U.S. production was *** throughout the period of investigation, at *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019.⁶⁷ In any final phase of these investigations, we intend to examine further the degree to which, if any, *** U.S. production operations benefit from its corporate relationships and any cost advantages that *** may have due to its sourcing of raw materials.⁶⁸ For purposes of these preliminary determinations, 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 2018.⁶⁹ As such, it is the *** largest of the *** reporting domestic producers.⁷⁰ It *** the petitions.⁷¹ Its only imports of subject merchandise during the period of investigation were *** pounds in 2018 and *** pounds in interim 2019.⁷² *** indicated that its imports were ***.⁷³ The ratio of its subject imports to U.S. production was *** percent in 2018 and *** percent in interim 2019.⁷⁴ Consequently, its primary interest appears to be in domestic production.⁷⁵ In view of the fact that *** domestic production *** exceeded its subject imports, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.

Accordingly, we define one domestic industry consisting of all domestic producers of PET sheet except ***.

⁶⁴ See *e.g.*, Conf. Tr. at 104-05 (Barenberg); Petitioners’ Postconf. Br. at 8.

⁶⁵ See *e.g.*, Conf. Tr. at 105-06 (Barenberg); Petitioners’ Postconf. Br. at 8.

⁶⁶ CR/PR at Table III-4.

⁶⁷ CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2016, *** pounds in 2017, *** pounds in 2018, *** pounds in interim 2018, and *** pounds in interim 2019. *Id.*

⁶⁸ We also intend to examine further whether there are any contractual requirements between purchasers of subject merchandise from Oman and any *** that may benefit *** U.S. production operations.

⁶⁹ CR/PR at Table III-1.

⁷⁰ CR/PR at Table III-1.

⁷¹ CR/PR at Table III-1.

⁷² CR/PR at Table III-8.

⁷³ CR/PR at Table III-8.

⁷⁴ CR/PR at Table III-8. *** U.S. production of PET sheet was *** pounds in 2016, *** pounds in 2017, *** pounds in 2018, and *** pounds in interim 2018 and interim 2019. *Id.*

⁷⁵ *** did not provide financial data in its U.S. producer questionnaire response.

V. Negligible Imports

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 3 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 be deemed negligible.⁷⁶ The statute further provides that subject imports from a single country which comprise less than 3 percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than 7 percent of the volume of all such merchandise imported into the United States.⁷⁷

Additionally, even if subject imports are found to be negligible for purposes of present material injury, they shall not be treated as negligible for purposes of a threat analysis should the Commission determine that there is a potential that subject imports from the country concerned will imminently account for more than 3 percent of all such merchandise imported into the United States.⁷⁸ The Commission also assesses whether there is a potential that the aggregate volumes of subject imports from all countries with currently negligible imports will imminently exceed 7 percent of all such merchandise imported into the United States.⁷⁹

A. Arguments of the Parties

Petitioners' Arguments. Petitioners argue that subject imports from Korea, Mexico, and Oman are not negligible because they each accounted for more than 3 percent of total U.S. PET sheet imports in the most recent 12-month period for which data are available.⁸⁰ While recognizing that imports from Korea and Oman are not negligible based on importer questionnaire data,⁸¹ Petitioners contend that the Commission should not use questionnaire data to assess negligibility for Mexico in light of the questionnaire response rate, claiming that several importers of subject merchandise from Mexico and some subject producers in Mexico did not submit questionnaire responses.⁸² Instead, Petitioners provide their own negligibility calculation for Mexico by adjusting official import statistics with their own estimates.⁸³ According to Petitioners, for the 12-month period covering June 2018-May 2019, PET sheet

⁷⁶ 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

⁷⁷ 19 U.S.C. § 1677(24)(A)(ii).

⁷⁸ 19 U.S.C. § 1677(24)(A)(iv).

⁷⁹ 19 U.S.C. § 1677(24)(A)(iv). In determining the aggregate volume, the Commission shall not consider imports from any country to which the investigation has been terminated pursuant to 19 U.S.C. §§ 1677(7)(G)(ii)(II) and 1677(24)(A)(iii).

⁸⁰ Petitioners' Postconf. Br. at 10-11 & Exh.1 at 6-11.

⁸¹ Petitioners' Postconf. Br. at 10-11.

⁸² Petitioners' Postconf., Exh.1 at 6.

⁸³ Petitioners' Postconf., Exh.1 at 7-9 & Exh. 2.

comprises an estimated 60 percent of the total volume of imports from Mexico and Korea reported in official import statistics under the HTS basket category that includes PET sheet and out-of-scope PET film, 100 percent of the total volume of imports from Oman reported in the basket category, and 50 percent of the total volume of nonsubject imports reported in the basket category.⁸⁴ Based on these estimates, Petitioners assert that imports of PET sheet from all three subject countries are above the three percent negligibility threshold, with imports of PET sheet from Mexico accounting for *** percent of total imports of PET sheet between June 2018 and May 2019, and imports of PET sheet from Oman and Korea accounting for *** and *** percent, respectively, of total imports of PET sheet over the same period.⁸⁵

Respondents' Arguments. Respondents Inter Plas and OCTAL dispute Petitioners' assertion that imports of PET sheet from Mexico are not negligible.⁸⁶ They argue that Petitioners' negligibility calculation for Mexico is based on assumptions that are without basis in the record.⁸⁷ They contend that the estimates amount to guesswork and are unsupported by actual verifiable data.⁸⁸ OCTAL emphasizes that ***.⁸⁹ Inter Plas and OCTAL maintain that the questionnaire data from U.S. importers of PET sheet and from subject producers of PET sheet in Mexico that export subject merchandise to the United States indicate that imports of PET sheet from Mexico are below the three percent negligibility threshold.⁹⁰

B. Analysis

For the reasons stated below, we find that subject imports from Korea and Oman are not negligible. We further find that subject imports from Mexico are negligible for purposes of both our present material injury and threat analyses, and terminate the investigation with respect to Mexico.⁹¹

⁸⁴ See *e.g.*, Petition at Exhs. GEN-2 & GEN-5. For these estimates, Petitioners rely on an affidavit from the General Manager of U.S. PET sheet producer and petitioner Multi-Plastics Extrusions. *Id.* The affidavit states that it is based on the General Manager's experience in the U.S. market for PET sheet. See Petition at Exh. GEN-2.

⁸⁵ See *e.g.*, Petitioners' Postconf. Br. at 12 & Exh. 2 at 2.

⁸⁶ Inter Plas Postconf. Br. at 3-7; OCTAL Postconf. Br., Exh. 1 at 2-3.

⁸⁷ Inter Plas Postconf. Br. at 3-7; OCTAL Postconf. Br., Exh. 1 at 2-3.

⁸⁸ Inter Plas Postconf. Br. at 4-5; OCTAL Postconf. Br., Exh. 1 at 2-3.

⁸⁹ OCTAL Postconf. Br., Exh. 1 at 2-3.

⁹⁰ Inter Plas Postconf. Br. at 6-7.

⁹¹ Commissioner Stayin finds, for purposes of these preliminary determinations, that imports of PET sheet from Mexico are not negligible, and thus he would not terminate the investigation with respect to subject imports from Mexico. While he does not necessarily dispute his colleagues' analysis of the available import data in the current record, he would have benefitted from obtaining additional data in a final phase of these investigations in making his determination of whether imports from Mexico are negligible. See *American Lamb Co. v. United States*, 785 F.2d 994 (Fed. Cir. 1986). He notes that while the coverage of the Commission's questionnaire data was generally high for subject imports from Korea, Mexico, and Oman, it was much lower with respect to nonsubject imports. See CR/PR at Tables IV-1, IV-4.

Based on the Commission's importer questionnaire data, during the period July 2018 through June 2019, the 12-month period preceding the filing of the petitions on July 9, 2019, subject imports from Oman accounted for *** percent of total U.S. imports of PET sheet by quantity, subject imports from Korea accounted for *** percent, and subject imports from Mexico accounted for *** percent.⁹² Thus, subject imports from Oman and Korea are both above the pertinent negligibility threshold. Subject imports from Mexico, however, are well below the 3 percent negligibility threshold for the most recent 12-month period prior to the filing of the petitions.

We also consider whether there is a likelihood that evidence leading to a contrary result will arise in any final phase of the investigations. As discussed above, for their negligibility calculation for Mexico, Petitioners estimate that *** percent of the total volume of nonsubject imports reported in the basket category is in-scope PET sheet.⁹³ However, using Petitioners' own estimate for the percentage of nonsubject imports in the basket category that are in-scope PET sheet and making further assumptions in their favor,⁹⁴ Mexico's share of total imports of PET sheet over the applicable 12-month period would be *** percent, still well below the 3 percent negligibility threshold.⁹⁵ Moreover, even assuming that all of the remaining nonsubject imports reported in the basket category are out-of-scope, an assumption even more favorable to Petitioners than their assertions,⁹⁶ Mexico's share of total imports over the applicable 12-

⁹² See e.g., OINV Worksheet (EDIS Doc. No. 687619). The coverage for negligibility with respect to Mexico is *** percent. CR/PR at Revised Table IV-1. Petitioners' estimate of Mexican subject imports' share of the basket category is inconsistent with *** data and certified importer questionnaire responses. Based on *** data, U.S. importers accounting for *** percent of total 2018 imports from Mexico reported under HTS number 3920.62.0090 certified in their questionnaire responses to the Commission that they did not import in-scope PET sheet into the United States during the period of investigation. CR at IV-13, PR at IV-7; CR/PR at Table IV-6. In other words, contrary to Petitioners' estimate that *** percent of all imports from Mexico in the basket category are PET sheet, the record indicates that *** percent of all 2018 imports from Mexico in the basket category are not in-scope PET sheet; thus, only about *** percent of imports from Mexico under the basket category are in-scope PET sheet. In light of these and other methodological problems with Petitioners' proposed analysis, including use of the wrong negligibility period, we decline to adopt it.

⁹³ See e.g., Petition at Exhs. GEN-2 & GEN-5.

⁹⁴ For this negligibility calculation, we have adjusted Calculation A in Table IV-4 of the Staff Report, which supplements the Commission's importer questionnaire data with ***. We have assumed *arguendo* that all remaining imports from Mexico reported in *** under HTS number 3920.62.0090 for which the Commission does not have importer questionnaire coverage (for firms in *** that did not provide either a "yes" or "no" questionnaire response) are in-scope PET sheet. We have also assumed *arguendo* that all remaining imports from Korea and Oman and 50 percent of all remaining imports from nonsubject sources reported in *** under HTS number 3920.62.0090 for which the Commission does not have importer questionnaire coverage are out-of-scope merchandise. This approach makes the denominator for calculating negligibility as small as possible, which favors Petitioners, while also using Petitioners' own estimate for nonsubject imports.

⁹⁵ Derived from CR/PR at Table IV-4.

⁹⁶ For this negligibility calculation, we again have adjusted Calculation A in Table IV-4 of the Staff Report by assuming *arguendo* that all remaining imports from Mexico reported in *** under HTS (Continued...)

month period would be *** percent, which is also still well below the 3 percent negligibility threshold.⁹⁷ Finally, even using foreign producer questionnaires rather than importer questionnaires for imports from Mexico⁹⁸ and again making assumptions most favorable to Petitioners,⁹⁹ Mexico's share of total imports over the applicable 12-month period would be *** percent, which is still well below the 3 percent negligibility threshold.¹⁰⁰

Thus, even making all of the most favorable assumptions for Petitioners, none are likely to yield a negligibility percentage for subject imports from Mexico appreciably greater than those calculated above. In light of this, we find that there is not a reasonable likelihood that the Commission will obtain evidence in any final phase investigations supporting a conclusion that subject imports from Mexico could reach the 3 percent threshold.

Accordingly, we find that subject imports from Mexico are negligible for purposes of our present material injury analysis.

With respect to negligibility for purposes of the Commission's analysis of threat of material injury, we find that the record in the preliminary phase of these investigations demonstrates that subject imports from Mexico are not likely to surpass the 3 percent negligibility threshold in the imminent future.¹⁰¹

Monthly import data indicates that imports from Mexico did not reach 3 percent of total imports in any month between January 2018 and May 2019,¹⁰² and imports from Mexico as a share of total monthly imports were generally lower in the months just before the petitions

(...Continued)

number 3920.62.0090 for which the Commission does not have importer questionnaire coverage are in-scope PET sheet and that all remaining imports from Korea, Oman, and nonsubject sources reported in *** under HTS number 3920.62.0090 for which the Commission does not have importer questionnaire coverage are out-of-scope merchandise; this approach makes the denominator for calculating negligibility as small as possible in favor of Petitioners.

⁹⁷ See OINV Worksheet (EDIS Doc. 687619). Under this methodology, subject imports from Oman and Korea are both above the three-percent negligibility threshold, accounting for *** percent and *** percent, respectively, of total U.S. imports of PET sheet during the applicable 12-month negligibility period. *Id.*

⁹⁸ We have performed this alternate calculation because the quantity of PET sheet exports to the United States reported in Mexican foreign producer questionnaire responses was higher than the quantity of subject imports from Mexico reported in U.S. importer questionnaire responses. CR at IV-9, PR at IV-6.

⁹⁹ For this negligibility calculation, we have adjusted Calculation B in Table IV-4 of the Staff Report by assuming *arguendo* that all remaining imports from Korea, Oman, and nonsubject sources reported in *** under HTS number 3920.62.0090 for which the Commission does not have importer questionnaire coverage are out-of-scope merchandise.

¹⁰⁰ See OINV Worksheet (EDIS Doc. 687619). Under this methodology, subject imports from Oman and Korea are both above the three-percent negligibility threshold, accounting for *** percent and *** percent, respectively, of total U.S. imports of PET sheet during the applicable 12-month negligibility period. *Id.*

¹⁰¹ 19 U.S.C. § 1677(24)(A)(iv).

¹⁰² At the time of the vote in these preliminary phase investigations, monthly import data for June 2019 was not available.

were filed.¹⁰³ The share of total imports accounted for by subject imports from Mexico was below *** percent in each of the 17 months of January 2018 through May 2019 period and below *** percent in 9 of these months, reaching a monthly high of only *** percent in one month (October 2018).¹⁰⁴ Thus, in no monthly period for over a year before the petitions were filed did imports from Mexico even approach 3 percent of total imports.

Moreover, in none of the six available rolling 12-month periods prior to the petitions (those ending in December 2018 to May 2019) did subject imports from Mexico come close to accounting for 3 percent of total imports.¹⁰⁵ The volume of subject imports from Mexico as a share of total imports of PET sheet was actually declining in these latest 12-month periods.¹⁰⁶ Subject imports from Mexico accounted for *** percent of total U.S. imports during the 12-month period that ended in May 2019, and their share never exceeded *** percent in any of these 12-month periods.¹⁰⁷ In addition, comparing the same calendar months in 2018 and 2019, monthly subject imports from Mexico were higher in 2019 than in 2018 for only May, and only by *** pounds.¹⁰⁸

On an absolute basis, the volume of subject imports from Mexico was declining at the end of the period of investigation. For example, the volume of subject imports from Mexico was 45.4 percent lower in interim 2019 than in interim 2018.¹⁰⁹ Similarly, the monthly import data indicate that on an absolute basis the volume of subject imports from Mexico was generally declining at the end of the period of investigation.¹¹⁰ These volume trends belie the conclusion that imports from Mexico will imminently exceed the requisite negligibility threshold.

While importers reported arranged imports from Mexico for the periods April 2019 through March 2020, arranged imports from Mexico accounted for *** percent of total arranged imports during this period.¹¹¹ Importers reported arranged imports of PET sheet from Mexico only for April-June 2019 (*** pounds) and July-September 2019 (*** pounds).¹¹² The combined volume in these six months is below the monthly volume of subject imports from Mexico for every month of the POI except February 2019.¹¹³ Importers reported no inventories

¹⁰³ CR/PR at Revised Table IV-5 (based on supplemental questionnaire responses from Mexican producers and *** using HTS number 3920.62.0090).

¹⁰⁴ CR/PR at Revised Table IV-5.

¹⁰⁵ CR/PR at Revised Table IV-5.

¹⁰⁶ CR/PR at Revised Table IV-5.

¹⁰⁷ For these 12-month periods, the share of total imports accounted for by imports from Mexico ranged between a high of *** percent and a low of *** percent. CR/PR at Revised Table IV-5.

¹⁰⁸ CR/PR at Revised Table IV-5.

¹⁰⁹ CR at IV-4, PR at IV-2; CR/PR at Table IV-3.

¹¹⁰ CR/PR at Revised Table IV-5. During the 17-month period we considered, the monthly volume of subject imports from Mexico was at its highest in October 2018, and was lower during the remaining 7 months of this period (as well as in the preceding nine months). *Id.*

¹¹¹ CR/PR at Table VII-15.

¹¹² CR/PR at Table VII-15.

¹¹³ CR/PR at Tables IV-8 & VII-15.

of subject merchandise from Mexico in interim 2019 (and similarly reported no such inventories throughout the POI).¹¹⁴

Data from subject producers in Mexico indicated that reported capacity was steady in 2017 and 2018, and was projected to remain constant in 2019 and 2020.¹¹⁵ Reported capacity utilization for the industry in Mexico was *** percent in 2018, *** percent in interim 2019, and projected to be *** percent in 2019 and *** percent in 2020.¹¹⁶ End-of-period inventories for subject producers in Mexico were higher in interim 2019, at *** pounds, than in interim 2018, at *** pounds, but were projected to be *** pounds in 2019 and *** pounds in 2020.¹¹⁷

As discussed above, the available information in the current record indicates that imports of PET sheet from Mexico remained well below the 3 percent negligibility threshold during the applicable 12-month period before the filing of the petitions, and in all preceding average 12-month periods, as well as in each individual monthly period between January 2018 and May 2019. The record also indicates that the volume of subject imports from Mexico as a ratio to total imports of PET sheet was declining and reached period lows in the applicable 12-month period before the filing of the petitions. The absolute volume of subject imports from Mexico declined substantially at the end of the POI, and arranged imports after the end of the POI for Mexico accounted for well below 3 percent of total arranged imports. Moreover, there is no indication of any likely changes in conditions of competition in the U.S. market that would suggest that subject imports from Mexico would likely account for more than 3 percent of total imports in the imminent future.

In short, imports of PET sheet from Mexico are well below the negligibility threshold, and the record in the preliminary phase of these investigations contains clear and convincing evidence that there is not a potential that subject imports from Mexico will imminently account for more than 3 percent of total imports of PET sheet. Moreover, there is no likelihood that evidence leading to a contrary result will arise in a final phase of these investigations. Accordingly, we find that imports from Mexico also are negligible for threat purposes and terminate the investigation with respect to Mexico.

VI. Cumulation

For purposes of evaluating the volume and effects for a determination of reasonable indication 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:

¹¹⁴ CR/PR at Table VII-4.

¹¹⁵ CR/PR at Table VII-5.

¹¹⁶ CR/PR at Table VII-5.

¹¹⁷ CR/PR at Table VII-5.

- (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
- (4) whether the subject imports are simultaneously present in the market.¹¹⁸

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.¹¹⁹ Only a “reasonable overlap” of competition is required.¹²⁰

As discussed above, we have found that subject imports are negligible in the antidumping duty investigation involving Mexico and terminated that investigation. Consequently, subject imports from Mexico are ineligible for cumulation for purposes of our present material injury analysis. Allegedly dumped imports from Korea and Oman remain eligible for cumulation because Petitioners filed petitions with respect to all such subject imports on the same day, July 9, 2019. As explained below, we find a reasonable overlap of competition between the domestic like product and those imports from each subject country eligible for cumulation and between those imports from each such subject country.

A. Arguments of the Parties

Petitioners’ Arguments. Petitioners argue that the Commission should cumulatively assess imports from all subject countries because the petitions were filed on the same day and there is a reasonable overlap of competition among subject imports from each country and

¹¹⁸ See *Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-80 (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).

¹¹⁹ See, e.g., *Wieland Werke, AG v. United States*, 718 F. Supp. 50 (Ct. Int’l Trade 1989).

¹²⁰ 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*, 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.”).

between the subject imports and the domestic like product.¹²¹ Petitioners assert that PET sheet is a fungible product that is produced to standard industry specifications, and that it is highly interchangeable regardless of source.¹²² Petitioners also argue that subject imports compete with each other and with the domestic like product throughout the United States.¹²³ They contend that subject imports and the domestic like product are sold through the same channel of distribution (primarily to end users).¹²⁴ Lastly, Petitioners maintain that the domestic like product and subject imports from all sources were sold in the United States during each year of the POI.¹²⁵

Respondents' Arguments. OCTAL argues that the Commission should not cumulate subject imports from Oman with subject imports from Korea and Mexico for purposes of present material injury.¹²⁶ It claims that PET sheet from Oman lacks fungibility with PET sheet from other sources due to OCTAL's unique direct-to-sheet manufacturing process, which results in superior physical characteristics that PET sheet customers find important, including better clarity, formability, product uniformity, and viscosity.¹²⁷ In terms of lack of fungibility, OCTAL also emphasizes that it has much larger production capacity at its facility in Oman than domestic producers of PET sheet, allowing it to sell to larger-volume customers that the domestic industry cannot satisfy.¹²⁸

B. Analysis

Based on the record of the preliminary phase of these investigations, we find a reasonable overlap of competition between eligible subject imports from Korea and Oman and among subject imports from Korea, subject imports from Oman, and the domestic like product.

Fungibility. Almost all responding U.S. producers and importers, when comparing the domestic product with imports from individual subject sources or comparing imports from different subject sources, reported that PET sheet from different sources is always or frequently interchangeable.¹²⁹ Additionally, most U.S. producers reported that factors other than price

¹²¹ Petitioners' Postconf. Br. at 12-16.

¹²² Petitioners' Postconf. Br. at 13-15 & Exh. 1 at 11-14. Petitioners observe that the vast majority of responding U.S. producers and importers reported that subject imports are always or frequently interchangeable with the domestic like product. *Id.* at 14. Petitioners also note that representatives of the domestic industry testified at the conference that all PET sheet, regardless of the source, is fungible. *Id.* Finally, Petitioners contend that there is information in the record indicating that there is some overlap in customers for subject imports from Oman and domestically produced PET sheet. *Id.* at 14-15.

¹²³ Petitioners' Postconf. Br. at 15-16.

¹²⁴ Petitioners' Postconf. Br. at 16.

¹²⁵ Petitioners' Postconf. Br. at 16.

¹²⁶ OCTAL Postconf. Br. at 8-13 & 17-24.

¹²⁷ OCTAL Postconf. Br. at 17-20.

¹²⁸ OCTAL Postconf. Br. at 23-24.

¹²⁹ CR/PR at Table II-5. In comparing the domestic like product with subject imports from Oman, 16 of 18 U.S. producers reported that they were always or frequently interchangeable, one producer (Continued...)

were only sometimes or never a significant factor in purchasing decisions for PET sheet in comparisons of the domestic like product and subject imports from each of the subject countries, as well as in comparisons between subject imports.¹³⁰ However, the responses of importers were mixed. Most responding importers reported that non-price differences are only sometimes or never a significant factor in purchasing decisions for PET sheet in comparisons between the domestic like product and subject imports.¹³¹ In comparisons of subject imports from Oman with subject imports from Korea, one of two responding importers reported that non-price differences were always significant while the other importer reported that non-price differences were never significant.¹³²

Based on the record in the preliminary phase of these investigations, we find that PET sheet is at least moderately fungible, regardless of source. As discussed above, market participants generally perceive products from different sources to be interchangeable. Although there may be some distinctions in terms of the manufacturing processes and properties of subject PET sheet produced by OCTAL at its facility in Oman versus domestically produced PET sheet,¹³³ the record indicates a sufficient degree of fungibility between and

(...Continued)

reported that they were sometimes interchangeable, and one producer reported that they were never interchangeable. *Id.* In comparing the domestic like product with subject imports from Oman, three importers reported that they were always interchangeable and one importer reported that they were never interchangeable. *Id.* In comparing the domestic like product with subject imports from Korea, all 15 U.S. producers and five of six importers reported that they were always or frequently interchangeable, while one importer reported that they were only sometimes interchangeable. *Id.*

In comparing subject imports from Oman with subject imports from Korea, 12 of 13 U.S. producers reported that they were always or frequently interchangeable, and *** producer reported that they were never interchangeable. *Id.* In comparing the subject imports from Oman with subject imports from Korea, three importers reported that they were always interchangeable and one importer reported that they were never interchangeable. *Id.*

¹³⁰ CR/PR at Table II-6. In comparing the domestic like product with subject imports from Oman, 12 of 17 U.S. producers reported that factors other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet, while 5 of 17 producers reported that they were always or frequently significant. *Id.* In comparing the domestic like product with subject imports from Korea, 12 of 14 U.S. producers reported that factors other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet, while one producer each reported that they were always or frequently significant. *Id.*

¹³¹ CR/PR at Table II-6. In comparing the domestic like product with subject imports from Oman, two of three U.S. importers reported that factors other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet, while one importer reported that they were always significant. *Id.* In comparing the domestic like product with subject imports from Korea, six of seven U.S. importers reported that factors other than price were only sometimes or never a significant factor in purchasing decisions for PET sheet, while one importer reported that they were frequently significant. *Id.*

¹³² CR/PR at Table II-6.

¹³³ CR at I-13, PR at I-9.

among subject imports from Korea, subject imports from Oman, and the domestic like product to satisfy the “reasonable overlap” standard.

Channels of Distribution. Subject imports from Korea and Oman and the domestic like product shared the same general channels of distribution. During the period of investigation, domestic producers and importers of subject PET sheet sold overwhelmingly to end users.¹³⁴

Geographic Overlap. U.S. producers reported selling PET sheet to all regions in the contiguous United States.¹³⁵ Subject imports from Oman also were sold in all regions of the contiguous United States during the period of investigation and subject imports from Korea were sold in all regions of the contiguous United States except the Central Southwest region.¹³⁶

Simultaneous Presence in Market. Subject imports from Korea and Oman were present in the U.S. market in each month during the period of investigation.¹³⁷ Domestically produced PET sheet was also present in the U.S. market throughout the POI.¹³⁸

Conclusion. The record indicates that imports from the eligible subject countries are generally fungible with the domestic like product and with each other, that imports from each of the subject countries and the domestic like product are sold in similar channels of distribution and similar geographic markets, and that subject imports and the domestic like product have been simultaneously present in the U.S. market. In light of the foregoing, we find that there is a reasonable overlap of competition between the domestic like product and imports from each subject country eligible for cumulation and between imports from each such subject country. Accordingly, we cumulate subject imports from Korea and Oman for purposes of our analysis of whether there is a reasonable indication of material injury by reason of subject imports.¹³⁹

¹³⁴ CR/PR at Table II-1. During the POI, the *** majority of the domestic like product (ranging from *** percent to *** percent) was sold to end users. For both subject countries eligible for cumulation for present material injury, almost all shipments of subject imports were sold to end users throughout the period of investigation. *Id.* With respect to subject imports from Oman, *** percent of shipments were made to end users throughout the period of investigation. *Id.* For subject imports from Korea, *** percent of shipments were sold to end users during 2016-2018 and interim 2018 while *** percent of shipments were sold to end users in interim 2019. *Id.*

¹³⁵ CR/PR at Table II-2.

¹³⁶ CR/PR at Table II-2.

¹³⁷ CR/PR at Revised Table IV-8.

¹³⁸ CR/PR at Tables V-3-6.

¹³⁹ Commissioner Stayin finds that there is a reasonable overlap of competition between and among subject imports from Korea, Mexico, and Oman and the domestic like product. He finds that the record indicates that imports from all three subject countries and the domestic like product are generally fungible with each other, are sold in similar channels of distribution and similar geographic markets, and have been simultaneously present in the U.S. market during the period of investigation. See CR/PR at Tables II-1, II-2, II-5; IV-8, V-3 through V-6. Accordingly, he cumulates subject imports from Korea, Mexico, and Oman for purposes of his analysis of whether there is a reasonable indication of material injury by reason of subject imports.

VII. Reasonable Indication of Material Injury by Reason of Subject Imports

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.¹⁴⁰ 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.¹⁴¹ The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”¹⁴² In assessing whether there is a reasonable indication that 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.¹⁴³ 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.”¹⁴⁴

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports,¹⁴⁵ 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.¹⁴⁶ In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the “by reason of” standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.¹⁴⁷

¹⁴⁰ 19 U.S.C. §§ 1671b(a), 1673b(a).

¹⁴¹ 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).

¹⁴² 19 U.S.C. § 1677(7)(A).

¹⁴³ 19 U.S.C. § 1677(7)(C)(iii).

¹⁴⁴ 19 U.S.C. § 1677(7)(C)(iii).

¹⁴⁵ 19 U.S.C. §§ 1671b(a), 1673b(a).

¹⁴⁶ *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).

¹⁴⁷ 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. (Continued...))

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.¹⁴⁸ In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.¹⁴⁹ 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.¹⁵⁰ It is

(...Continued)

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).

¹⁴⁸ SAA at 851-52 (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry”); *accord Mittal Steel*, 542 F.3d at 877.

¹⁴⁹ 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.”).

¹⁵⁰ S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

clear that the existence of injury caused by other factors does not compel a negative determination.¹⁵¹

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.”¹⁵² The Commission ensures that it has “evidence in the record” to “show that the harm occurred ‘by reason of’ the LTFV imports,” and that it is “not attributing injury from other sources to the subject imports.”¹⁵³ The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”¹⁵⁴

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.¹⁵⁵ Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.¹⁵⁶

B. Conditions of Competition and the Business Cycle

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

¹⁵¹ 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.”).

¹⁵² *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*.

¹⁵³ *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.

¹⁵⁴ *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.”).

¹⁵⁵ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

¹⁵⁶ *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.”).

1. Captive Production

The domestic industry captively consumes the majority of its production of the domestic like product in the manufacture of downstream articles. Accordingly, we have considered whether the statutory captive production provision requires us to focus our analysis primarily on the merchant market when assessing market share and the factors affecting the financial performance of the domestic industry.¹⁵⁷

Petitioners argue that the Commission should apply the captive production provision.¹⁵⁸ Among respondents, only OCTAL specifically addresses the application of the provision and acknowledges that it applies to these investigations.¹⁵⁹ While agreeing that the Commission is required to focus primarily on the merchant market in evaluating the condition of the industry, OCTAL maintains that consideration of the overall production of PET sheet is also important.¹⁶⁰

Threshold Criterion. The captive production provision is to 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 consumption accounted for between *** percent and *** percent of the domestic industry's U.S. shipments of PET sheet during the POI.¹⁶¹ Commercial shipments accounted for between *** percent and *** percent of the domestic industry's U.S. shipments in this period.¹⁶² We find that the threshold criterion is satisfied since both the internal consumption and merchant market portions of the domestic industry's shipments are significant.

¹⁵⁷ 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).

¹⁵⁸ Petitioners' Postconf. Br. at 22-24.

¹⁵⁹ OCTAL's Postconf. Br., Exh. 1 at 1-2.

¹⁶⁰ OCTAL's Postconf. Br., Exh. 1 at 1-2.

¹⁶¹ CR/PR at Table III-6.

¹⁶² CR/PR at Table III-6.

First Statutory Criterion. We also determine that the first statutory criterion has been met. This criterion focuses on whether any of the domestic like product that is transferred internally for further processing is in fact sold on the merchant market.¹⁶³ No domestic producers in these investigations reported diverting PET sheet that was to be internally consumed to the merchant market.¹⁶⁴

Second Statutory Criterion. In applying the second statutory criterion, we generally consider whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product.¹⁶⁵ In these investigations, although estimates varied, reporting domestic producers indicated that PET sheet accounted on average for *** percent of the cost of the downstream products produced from PET sheet, *i.e.* thermoformed packaging products.¹⁶⁶ Since PET sheet is the predominant material input into downstream products, this criterion is also satisfied in these investigations.

Conclusion. We conclude that the criteria for the application of the captive production provision are satisfied in these investigations 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 the downstream products that use PET sheet.¹⁶⁷ As previously mentioned, reported end uses for PET sheet are food, beverage, and retail packaging, including food trays and containers, carry-out containers, drinking cups, medical trays, paint tray liners, consumer packaging, and packaging for electro static sensitive devices.¹⁶⁸

Half of responding U.S. producers (8 out of 16) and most responding importers (6 out of 11) reported that U.S. demand for PET sheet increased during the POI.¹⁶⁹ The parties generally

¹⁶³ 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).

¹⁶⁴ CR at III-22, PR at III-15.

¹⁶⁵ 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 (October 2008) at 17 n.103; *Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan*, Inv. Nos. 701-TA-415 and 731-TA-933-34 (Final), USITC Pub. 3518 (June 2002) at 11 & n.51. 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 (June 2003) at 15 n.69.

¹⁶⁶ CR at III-22, PR at III-15.

¹⁶⁷ CR at II-9, PR at II-5.

¹⁶⁸ CR at II-9, PR at II-5.

¹⁶⁹ CR/PR at Table II-4.

agree that demand for PET sheet was strong throughout the period of investigation, that demand for PET sheet is seasonal and strongest in the Fall and Spring and around major holidays, and that the recyclable nature of PET sheet and growing consumer preferences for sustainable packaging led to increased demand for PET sheet during the period of investigation.¹⁷⁰

In the merchant market, apparent U.S. consumption of PET sheet increased from *** pounds in 2016 to *** pounds in 2017, and then declined to *** pounds in 2018, for an overall increase of *** percent from 2016 to 2018; it was *** percent higher in interim 2019, at *** pounds, than in interim 2018, at *** pounds.¹⁷¹

3. Supply Conditions

The domestic industry was the second largest source of supply in the U.S. merchant market throughout the period of investigation. Its share of apparent U.S. consumption in the merchant market declined from *** percent in 2016 to *** percent in 2017, and then increased to *** percent in 2018, for an overall decline of *** percentage points between 2016 and 2018; its share of the merchant market was lower in interim 2019, at *** percent, than in interim 2018, at *** percent.¹⁷²

Cumulated subject imports maintained the largest presence in the U.S. merchant market throughout the period of investigation.¹⁷³ Their share of apparent U.S. consumption in the merchant market increased from *** percent in 2016 to *** percent in 2017 and then declined to *** percent in 2018, for an overall decline of *** percentage points between 2016 and 2018; subject imports' share of apparent U.S. consumption in the merchant market was

¹⁷⁰ See, e.g., Petitioners' Postconf. Br. at 17; Conf. Tr. at 69-70 (Debode) & 107, 134-135 (Pyland).

¹⁷¹ CR/PR at Table C-4. In the total market, apparent U.S. consumption of PET sheet increased from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018, for an overall increase of *** percent from 2016 to 2018; it was *** percent higher in interim 2019, at *** pounds, than in interim 2018, at *** pounds. CR/PR at Table C-3.

¹⁷² CR/PR at Table C-4. The domestic industry's share of apparent U.S. consumption in the total market declined from *** percent in 2016 to *** percent in 2017, and then increased to *** percent in 2018, for an overall increase of *** percentage points between 2016 and 2018; its share of apparent U.S. consumption in the total market was *** percentage points lower in interim 2019, at *** percent, than in interim 2018, at *** percent. CR/PR at Table C-3. As previously discussed, U.S. producer *** was excluded from the domestic industry as a related party. Its share of apparent consumption in the merchant market increased from *** percent in 2016 to *** percent in 2017 and *** percent in 2018. CR/PR at Table C-4. It was *** percent in interim 2018, and lower, at *** percent in interim 2019. *Id.* *** share of apparent U.S. consumption in the total market increased from *** percent in 2016 to *** percent in 2017, and then decreased to *** percent in 2018. CR/PR at Table C-3. It was *** percent in interim 2018, and lower, at *** percent, in interim 2019. *Id.*

¹⁷³ CR/PR at Table C-4.

higher in interim 2019, at *** percent than in interim 2018, at *** percent.^{174 175} In late May 2018, the sole producer in Oman had to shut down production for multiple months due to damage from the Mekunu cyclone. As a result of this temporary shutdown, the producer was unable to supply its U.S. customers from July through September 2018, and it temporarily ***.¹⁷⁶

Nonsubject imports (including imports from Mexico) were the smallest source of supply to the U.S. market throughout the period of investigation. Nonsubject imports' share of apparent U.S. consumption in the merchant market was *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019.^{177 178} During the period of investigation, the leading source of nonsubject imports was Canada.¹⁷⁹

4. Substitutability and Other Conditions

The record in the preliminary phase of these investigations indicates that domestically produced PET sheet and PET sheet from Korea and Oman are at least moderately substitutable.^{180 181} As discussed above, the large majority of U.S. producers and importers

¹⁷⁴ CR/PR at Table C-4. Cumulated subject imports' share of apparent U.S. consumption in the total market increased from *** percent in 2016 to *** percent in 2017, and then declined to *** percent in 2018, for an overall decline of *** percentage points between 2016 and 2018; their share of apparent U.S. consumption in the total market was higher in interim 2019, at *** percent, than in interim 2018, at *** percent. CR/PR at Table C-3.

¹⁷⁵ Commissioner Stayin notes that the record indicates that the share of the U.S. merchant market of cumulated subject imports from Korea, Mexico, and Oman was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-4. The share of the U.S. total market of cumulated subject imports from Korea, Mexico, and Oman was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-3.

¹⁷⁶ CR at IV-4, PR at IV-2; CR/PR at Table VII-9; OCTAL's Postconf. Br. at 16.

¹⁷⁷ CR/PR at Table C-4. Nonsubject imports' share of apparent U.S. consumption in the total market was *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019. CR/PR at Table C-3.

¹⁷⁸ Commissioner Stayin does not consider imports from Mexico to be nonsubject imports. He notes that when subject imports from Mexico are not treated as nonsubject imports, the record shows that the share of apparent U.S. consumption in the merchant market of nonsubject imports was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-4. Similarly, when subject imports from Mexico are not treated as nonsubject imports, the share of apparent U.S. consumption in the total U.S. market of nonsubject imports was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-3.

¹⁷⁹ See *e.g.*, CR at II-8, PR at II-4.

¹⁸⁰ CR at II-12, PR at II-7.

reported that the domestic like product and subject imports from Korea and Oman were always or frequently interchangeable in all comparisons.^{182 183}

The record also indicates that price is an important factor in purchasing decisions for PET sheet. Purchasers responding to the lost sales and lost revenue survey ranked price, along with quality and availability, among the most important factors in purchasing decisions for PET sheet.¹⁸⁴ As described above, the large majority of U.S. producers and at least half of importers reported for all comparisons that differences other than price were only sometimes or never significant in purchasing decisions for PET sheet.¹⁸⁵

The major raw material input used to produce PET sheet is PET resin.¹⁸⁶ As a share of the domestic industry's cost of goods sold ("COGS"), raw material costs ranged from *** to *** percent during the period of investigation.¹⁸⁷ The most widely used price index for PET resin is the Chemical Data Incorporated index ("CDI index"), which is publically available and published monthly.¹⁸⁸ U.S. PET resin prices in the CDI index increased overall by *** percent between January 2016 and March 2019.¹⁸⁹ Petitioners describe PET sheet pricing by domestic producers as being based on raw material cost per pound plus an add-on, and explain that price

(...Continued)

¹⁸¹ Commissioner Stayin finds that the record in these preliminary phase investigations indicates that domestically produced PET sheet and PET sheet from Korea, Mexico, and Oman are at least moderately substitutable. See CR/PR at Table II-5; CR at II-12; PR at II-7.

¹⁸² CR/PR at Table II-5.

¹⁸³ The parties have presented conflicting assertions concerning the degree of substitutability between the domestic like product and the subject imports. Petitioners contend that PET sheet is a highly substitutable product that competes on the basis of price. See *e.g.*, Petitioners' Postconf. Br. at 19. OCTAL argues that subject imports from Oman are not substitutable with domestically produced PET sheet or subject imports from any other source. See *e.g.*, OCTAL's Postconf. Br. at 10-12. According to OCTAL, PET sheet produced at its Oman facility has significant physical differences (*e.g.*, better clarity, better formability, better consistency) that make it a different and significantly better version of traditional PET sheet than that produced by the domestic industry or imported from other subject countries. *Id.* OCTAL further argues that its production method has a lower carbon footprint, and that this and its ability to produce large volumes lead some purchasers to prefer its PET sheet over that from other sources. OCTAL Postconf. Br. at 21-23. In any final phase of these investigations, we will further examine the degree to which product characteristics and production-related factors may limit the substitutability between subject imports from Oman and domestic like product and subject imports from Korea.

¹⁸⁴ CR at II-13, PR at II-7.

¹⁸⁵ CR/PR at Table II-6. In line with its arguments about its products' properties and production method, OCTAL argues that its purchasers base their decision to purchase Omani PET sheet on factors other than price. See OCTAL's Postconf. Br. at 27-29. In any final phase of these investigations, we will further examine the factors in purchasers' purchasing decisions.

¹⁸⁶ CR/PR at V-1; CR at VI-5, PR at VI-2.

¹⁸⁷ CR/PR at Table VI-1 (with data for *** excluded from calculation).

¹⁸⁸ CR/PR at V-1; Conf. Tr. at 113 (Pyland).

¹⁸⁹ CR/PR at V-1.

competition focuses on the amount of the add-on.¹⁹⁰ Respondent OCTAL describes PET sheet pricing as generally tracking the CDI index for PET resin and using some form of formula-based pricing that passes changes in raw material prices through to purchasers.¹⁹¹

Questionnaire data indicate that the large majority (***) percent) of domestic producers' U.S. commercial shipments of PET sheet in 2018 were spot sales.¹⁹² Importers' U.S. commercial shipments generally used both long term contracts (***) percent) and spot sales (***) percent), with much smaller amounts (***) percent) under short-term contracts.¹⁹³ OCTAL, Inc., the sole U.S. importer of subject merchandise from Oman, reported using long-term contracts for virtually all of its U.S. commercial shipments.¹⁹⁴

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."¹⁹⁵

Cumulated subject imports from Korea and Oman maintained a substantial presence in the U.S. market throughout the POI. During the POI, the volume of cumulated subject imports was *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018; it was *** pounds in interim 2018 and higher, at *** pounds, in interim 2019.¹⁹⁶ Cumulated subject imports' share of the U.S. merchant market was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019.¹⁹⁷ For purposes of these preliminary determinations, we find that the volume of cumulated subject imports is significant, both in absolute terms and relative to consumption in the United States.¹⁹⁸

¹⁹⁰ See *e.g.*, Petitioners' Postconf. Br. at Exh. 9.

¹⁹¹ See *e.g.*, OCTAL's Postconf. Br. at 30-31.

¹⁹² CR/PR at Table V-2. In addition to spot sales, *** percent of domestic producers' U.S. commercial shipments were sold using long-term contracts, *** percent were on short-term contracts, and *** percent were on annual contracts. *Id.*

¹⁹³ CR/PR at Table V-2.

¹⁹⁴ CR at V-3, PR at V-1-2; OCTAL's Postconf. Br. at 31.

¹⁹⁵ 19 U.S.C. § 1677(7)(C)(i).

¹⁹⁶ CR/PR at Table IV-3.

¹⁹⁷ CR/PR at Table C-4. Cumulated subject imports' share of the U.S. total market was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent in interim 2019. CR/PR at Table C-3.

¹⁹⁸ Commissioner Stayin finds, for purposes of these preliminary determinations, that the volume of cumulated subject imports from Korea, Mexico, and Oman is significant, both in absolute terms and relative to consumption in the United States. The record indicates that the volume of cumulated subject imports from Korea, Mexico, and Oman was *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018; it was *** pounds in interim 2018 and higher, at *** pounds, in interim 2019. CR/PR at Table IV-3. The share of the U.S. merchant market of cumulated subject imports from Korea, (Continued...)

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of 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.¹⁹⁹

As discussed above, the record indicates at least a moderate degree of substitutability among subject imports from Korea and Oman and the domestic like product, and that price is an important consideration in purchasing decisions.²⁰⁰

The Commission collected quarterly pricing data from U.S. producers and importers for total quantity and f.o.b. value on four PET sheet products shipped to unrelated U.S. customers over the period of investigation.²⁰¹ Six U.S. producers in the domestic industry and three importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.²⁰² Cumulated subject imports undersold the domestic like product in 58 of 62 possible quarterly comparisons and oversold it in the

(...Continued)

Mexico, and Oman was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-4. The share of the U.S. total market of cumulated subject imports from Korea, Mexico, and Oman was *** percent in 2016, *** percent in 2017, and *** percent in 2018; it was *** percent in interim 2018, and higher, at *** percent, in interim 2019. CR/PR at Table C-3.

¹⁹⁹ 19 U.S.C. § 1677(7)(C)(ii).

²⁰⁰ CR at II-13, PR at II-7; CR/PR at Tables II-5 & II-6.

²⁰¹ The pricing products were as follows: 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; and 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. CR at V-5, PR at V-3.

²⁰² CR at V-5, PR at V-3. Pricing data reported by these firms accounted for approximately *** percent of U.S. producers’ U.S. shipments, *** percent of subject imports from Korea, and *** percent of subject imports from Oman. CR at V-6, PR at V-3-4; *Derived from* CR/PR at Tables V-3-6. U.S. producer ***, excluded from the domestic industry as a related party, ***.

remaining four comparisons.²⁰³ The total quantity of cumulated subject imports in quarters with underselling was *** pounds compared to *** pounds of cumulated subject imports in quarters with overselling.²⁰⁴ Several purchasers confirmed purchasing subject imports instead of the domestic like product and reported that subject imports were priced lower than the domestically produced product.²⁰⁵ Based on the record of the preliminary phase of these investigations, we find that there has been significant underselling of the domestic like product by cumulated subject imports.

We have also considered price trends for the domestic like product and subject imports. The pricing data indicate that the domestic industry's prices generally increased for all four pricing products during the period of investigation, with price increases ranging from 0.8 percent to 7.8 percent.²⁰⁶ The pricing data indicate that subject import prices also increased for all four pricing products, with price increases ranging from *** percent to *** percent.²⁰⁷

We find that cumulated subject imports had the effect of preventing price increases which otherwise would have occurred to a significant degree. The domestic industry's unit COGS for its merchant market shipments increased more than its unit commercial sales values between 2016 and 2018,²⁰⁸ resulting in an increase in the domestic industry's COGS to net sales ratio from *** percent in 2016 to *** percent in 2017 and *** percent in 2018.²⁰⁹ Given the magnitude of the increase in the domestic industry's COGS to net sales ratio during a period of

²⁰³ Revised Table V-8b (EDIS Doc. 687540). Cumulated subject imports' margins of underselling ranged from 0.1 percent to 28.3 percent, with an average margin of 13.0 percent, during the POI. *Id.* Cumulated subject imports' margins of overselling ranged from 2.2 percent to 27.9 percent, with an average margin of 10.6 percent, during the POI. *Id.*

²⁰⁴ Revised Table V-8b (EDIS Doc. 687540).

²⁰⁵ *** of 11 purchasers responding to the Commission's questionnaire reported that they had purchased cumulated subject imports instead of the domestic like product since 2016, *** of these purchasers reported that subject import prices were lower than the domestically produced product, and *** reported that price was the primary reason for purchasing subject imports (although two also provided additional reasons). CR/PR at Tables V-10a, V-10b.

²⁰⁶ Revised Table V-7 (EDIS Doc. 687540).

²⁰⁷ Revised Table V-7 (EDIS Doc. 687540).

²⁰⁸ CR/PR at Table C-4. In the merchant market, the domestic industry's unit COGS increased by *** percent between 2016 and 2018, increasing from \$*** in 2016 to \$*** in 2018; it was higher in interim 2019, at \$***, than in interim 2018, at \$***. *Id.* The domestic industry's unit commercial sales values in the merchant market increased by *** percent from 2016 to 2018, increasing from \$*** in 2016 to \$*** in 2018; it was higher in interim 2019, at \$***, than in interim 2018, at \$***. *Id.* In the total market, the domestic industry's unit COGS increased by *** percent from 2016 to 2018, while its unit net sales' values declined by *** percent during the same period. CR/PR at Table C-3.

²⁰⁹ CR/PR at Table C-4. In the merchant market, the domestic industry's COGS to net sales ratio was higher in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.* In the total market, the domestic industry's COGS to net sales ratio increased from *** percent in 2016 to *** percent in 2017 and *** percent in 2018; it was higher in interim 2019, at *** percent, than in interim 2018, at *** percent. CR/PR at Table C-3.

increasing apparent U.S. consumption,²¹⁰ and the fact that PET sheet pricing often takes into account raw material costs, which are readily publically available and rose during the POI,²¹¹ we find that cumulated subject imports had significant price-suppressing effects.^{212 213}

In sum, for purposes of the preliminary phase of these investigations, we find that cumulated subject imports significantly undersold the domestic like product, and that the cumulated subject imports suppressed domestic prices to a significant degree. We consequently find that the cumulated subject imports had significant adverse price effects.²¹⁴

²¹⁰ As discussed above, apparent U.S. consumption of PET sheet in the merchant market increased from *** pounds in 2016 to *** pounds in 2017, and then declined to *** pounds in 2018, for an overall increase of *** percent from 2016 to 2018. CR/PR at Table C-4. Apparent U.S. consumption of PET sheet in the total market increased from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018, for an overall increase of *** percent from 2016 to 2018. CR/PR at Table C-3.

²¹¹ CR at V-1-2, PR at V-1; OCTAL's Postconf. Br. at 33-34 & Exh. 7; Conf. Tr. at 113 (Pyland); Petitioners' Postconf. Br. at Exh. 18.

²¹² OCTAL maintains that its long-term supply contracts for PET sheet with its largest customers, which account for more than *** percent of its sales, are based on the CDI price index for PET resin, the major raw material input for PET sheet. OCTAL's Postconf. Br. at 29-30. OCTAL claims that its prices for PET sheet "very closely" track the CDI price index. *Id.* at 30-31. According to OCTAL, subject import prices for PET sheet from Oman "during 2017 and 2018 and 2019 were changing not because of decisions by OCTAL, but rather were changing because of changes in the underlying index specified in those long-term contracts." *Id.* at 31. Regardless of OCTAL's asserted intentions and market fluctuations in the CDI index for PET resin, the record in the preliminary phase investigations indicates that there was significant underselling by cumulated subject imports and that cumulated subject imports had significant price-suppressing effects for the reasons discussed above.

²¹³ Petitioners argue that subject imports had significant price-suppressing effects since the domestic industry was able to raise prices for PET sheet during the period of investigation when subject imports "disappeared" from the U.S. market during OCTAL Oman's temporary shutdown following the Mekunu cyclone in May 2018. Petitioners' Postconf. Br. at 33-34. At the conference, a witness testifying on behalf of OCTAL acknowledged that the domestic industry was able to raise prices during OCTAL Oman's temporary shutdown, claiming that domestic producers "took advantage of the misfortune of OCTAL's customers and raised prices way beyond historic market prices." Conf. Tr. at 115 (Pyland). We intend to examine further the effect of OCTAL Oman's shutdown on prices in any final phase investigations.

²¹⁴ Commissioner Stayin finds, for purposes of the preliminary phase of these investigations, that cumulated subject imports from Korea, Mexico, and Oman significantly undersold the domestic like product and suppressed domestic prices to a significant degree. He notes that the record indicates that cumulated subject imports from Korea, Mexico, and Oman undersold the domestic like product in 68 of 76 possible quarterly comparisons and oversold it in the remaining eight comparisons. Revised Table V-8a (EDIS Doc. 687540). The total quantity of cumulated subject imports from Korea, Mexico, and Oman in quarters with underselling was *** pounds compared to *** pounds of cumulated subject imports from Korea, Mexico, and Oman in quarters with overselling. *Id.* He consequently finds that cumulated subject imports from Korea, Mexico, and Oman had significant price effects.

E. Impact of the Subject Imports²¹⁵

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, “shall evaluate all relevant economic factors which have a bearing on the state of the industry.” These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, 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.”²¹⁶

The domestic industry’s output-related indicia were mixed as they improved by some measures and deteriorated by other measures during the period of investigation. The domestic industry’s capacity increased by *** percent from 2016 to 2018, increasing from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018.²¹⁷ Its production increased by *** percent from 2016 to 2018, increasing from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018.²¹⁸ Its capacity utilization decreased by *** percentage points from 2016 to 2018, increasing from *** percent in 2016 to *** percent in 2017, before declining to *** percent in 2018.²¹⁹

The domestic industry’s commercial U.S. shipments fluctuated between years but increased overall by *** percent between 2016 and 2018, declining from *** pounds in 2016 to *** pounds in 2017, before increasing to *** pounds in 2018.²²⁰ The industry’s ending inventories fluctuated between years but declined overall by *** percent from 2016 to 2018, increasing from *** in 2016 to *** in 2017, but then declining to *** in 2018; they were ***

²¹⁵ In its notice initiating the antidumping duty investigations on PET sheet from Korea and Oman, Commerce reported estimated dumping margins of 44.13 percent and 52.01 percent for imports from Korea, and 75.02 and 114.43 percent for imports from Oman. *Polyethylene Terephthalate Sheet from Korea, Mexico, and the Sultanate of Oman*, 84 Fed. Reg. 44854, 44857 (Aug. 27, 2019).

Commissioner Stayin notes that in Commerce’s notice initiating the antidumping duty investigation on PET sheet from Mexico, it reported estimated dumping margins of 27.60 to 115.46 percent. *Id.*

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

²¹⁷ CR/PR at Table C-3. The domestic industry’s capacity was higher in interim 2019, at *** pounds, than in interim 2018, at *** pounds. *Id.*

²¹⁸ CR/PR at Table C-3. The domestic industry’s production was higher in interim 2019, at *** pounds, than in in interim 2018, at *** pounds. *Id.*

²¹⁹ CR/PR at Table C-3. The domestic industry’s capacity utilization was higher in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.*

²²⁰ CR/PR at Table C-4. The domestic industry’s commercial U.S. shipments were lower in interim 2019, at *** pounds, than in interim 2018, at *** pounds. *Id.* Its U.S. shipments in the total market decreased by *** percent between 2016 and 2018, increasing from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018. CR/PR at Table C-3. Its U.S. shipments in the total market were *** pounds in interim 2018, and higher, at *** pounds, in interim 2019. *Id.*

pounds in interim 2018, and higher, at *** pounds, in interim 2019.²²¹ The domestic industry's share of apparent U.S. consumption in the merchant market fluctuated between years but declined overall by *** percentage points from 2016 to 2018, declining from *** percent in 2016 to *** percent in 2017, before increasing to *** percent in 2018.²²²

The domestic industry's employment-related performance indicia were mixed. Employment,²²³ total hours worked,²²⁴ and wages paid²²⁵ increased steadily from 2016 to 2018. Hourly wages and productivity fluctuated between years but declined overall from 2016 to 2018.²²⁶

Despite overall rising demand, the domestic industry's financial performance deteriorated over the period of investigation. The industry's gross profits declined by *** percent from 2016 to 2018.²²⁷ The domestic industry posted growing operating losses and net losses in the merchant market from 2016 to 2018 and between interim periods, and its

²²¹ CR/PR at Table C-3.

²²² CR/PR at Table C-4. The domestic industry's share of apparent U.S. consumption in the merchant market was lower in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.* Its share of apparent U.S. consumption in the total market increased by *** percentage points between 2016 and 2018, decreasing from *** percent in 2016 to *** percent in 2017, before increasing to *** percent in 2018. CR/PR at Table C-3. Its share of apparent U.S. consumption in the total market was lower in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.*

²²³ Employment increased by *** percent from 2016 to 2018, increasing from *** production-related workers ("PRWs") in 2016 to *** PRWs in 2017, and *** PRWs in 2018. CR/PR at Table C-3. Employment was higher in interim 2019, at *** PRWs, than in interim 2018, at *** PRWs. *Id.*

²²⁴ Hours worked increased by *** percent from 2016 to 2018, increasing from *** hours in 2016 and 2017 to *** hours in 2018. CR/PR at Table C-3. Hours worked were lower in interim 2019, at *** hours, than in interim 2018, at *** hours. *Id.*

²²⁵ Wages paid increased by *** percent from 2016 to 2018, increasing from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR/PR at Table C-3. Wages paid were \$*** in interim 2018 and interim 2019. *Id.*

²²⁶ Hourly wages declined overall by *** percent from 2016 to 2018, increasing from \$*** per hour in 2016 to \$*** per hour in 2017, but then declining to \$*** per hour in 2018. CR/PR at Table C-3. Hourly wages were higher in interim 2019, at \$*** per hour, than in interim 2018, at \$*** per hour. *Id.* Productivity declined overall by *** percent from 2016 to 2018, increasing from *** pounds per hour in 2016 to *** pounds per hour in 2017, but then declining to *** pounds per hour in 2018. *Id.* Productivity was higher in interim 2019, at *** pounds per hour, than in interim 2018, at *** pounds per hour. *Id.*

²²⁷ In the merchant market, the domestic industry's gross profits declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR at Table C-4. The domestic industry posted gross losses in the merchant market of \$*** in interim 2018 and \$*** in interim 2019. *Id.* In the total market, the domestic industry's gross profits declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; they were lower in interim 2019, at \$***, than in interim 2018, at \$***. CR at Table C-3.

The domestic industry's net sales revenues in the merchant market increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR/PR at Table C-4. Its net sales revenues in the merchant market were lower in interim 2019, at \$***, than in interim 2018, at \$***. *Id.* In the total market, the domestic industry's net sales revenues declined from \$*** in 2016 to \$*** in 2017, before increasing to \$*** in 2018; they were higher in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table C-3.

operating income and net income fell sharply in the total market.²²⁸ As a ratio to net sales, the domestic industry's operating loss and net loss margins in the merchant market grew between 2016 and 2018 and between interim periods, and they fell sharply in the total market.^{229 230}

Thus, as apparent U.S. consumption increased overall during the POI, the domestic industry faced significant volumes of cumulated subject imports that significantly undersold the domestic like product. Further, the significant volumes of cumulated subject imports suppressed the industry's prices to a significant degree, resulting in a cost-price squeeze and declining financial performance, including growing operating and net losses.

In sum, the domestic industry's trade data, prices, revenues, and financial performance were worse than they would have been otherwise because of the cumulated subject imports. We therefore find that cumulated subject imports had a significant adverse impact on the domestic industry.²³¹

²²⁸ In the merchant market, the domestic industry's operating losses increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; operating losses were higher in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table C-4. In the total market, the domestic industry's operating income declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; it was lower in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table C-3.

In the merchant market, the domestic industry's net losses increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; net losses were lower in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table C-4. In the total market, the domestic industry's net income declined from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; it was lower in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table C-3.

²²⁹ In the merchant market, the domestic industry's operating losses as a ratio to net sales increased from *** percent in 2016 to *** percent in 2017 and *** percent in 2018. CR/PR at Table C-4. Its operating losses as a ratio to net sales in the merchant market were higher in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.* In the total market, the domestic industry's operating income as a ratio to net sales declined from *** percent in 2016 to *** percent in 2017 and *** percent in 2018; it was lower in interim 2019, at *** percent, than in interim 2018, at *** percent. CR/PR at Table C-3.

In the merchant market, the domestic industry's net losses as a ratio to net sales were *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019. CR/PR at Table C-4. In the total market, the domestic industry's net income as a ratio to net sales declined by *** percentage points from 2016 to 2018, declining from *** percent in 2016 to *** percent in 2017 and *** percent in 2018; it was lower in interim 2019, at *** percent, than in interim 2018, at *** percent. CR/PR at Table C-3.

²³⁰ The domestic industry's capital expenditures in the total market increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018. CR/PR at Table C-3. Its capital expenditures were lower in interim 2019, at \$***, than in interim 2018, at \$***. *Id.* The domestic industry's research and development expenses increased from \$*** in 2016 to \$*** in 2017 and \$*** in 2018; they were lower in interim 2019, at \$***, than in interim 2018, at \$***. CR/PR at Table VI-3. Domestic producers also reported negative effects on investment and on growth and development due to subject imports during the period of investigation. CR/PR at Tables VI-5-6.

²³¹ Based on the foregoing and on his earlier findings regarding volume and price effects, Commissioner Stayin finds that cumulated subject imports from Korea, Mexico, and Oman had a significant adverse impact on the domestic industry.

(Continued...)

We have also considered the role of other factors so as not to attribute injury from other factors to the subject imports. As noted above, apparent U.S. consumption increased during the POI, so any impact on the domestic industry's condition cannot be explained by declines in consumption.²³² We have considered the role of nonsubject imports (including imports from Mexico), which were the smallest source of supply to the U.S. market throughout the period of investigation. As discussed above, nonsubject imports' share of apparent U.S. consumption in the merchant market ranged from *** percent to *** percent during the period of investigation.²³³ Thus, the substantially smaller and relatively stable volume of nonsubject imports, which were generally priced higher than subject imports and the domestic like product,²³⁴ cannot explain the domestic industry's inability to raise its prices by a sufficient amount to recoup its higher raw material costs from its customers or the magnitude of the declines in the domestic industry's financial performance.²³⁵

(...Continued)

²³² CR/PR at Tables IV-9-12 & C-3-4

²³³ CR/PR at Table C-4. Nonsubject imports' share of apparent U.S. consumption in the total market ranged from *** percent to *** percent during the period of investigation. CR/PR at Table C-3.

²³⁴ In the merchant market, average unit values ("AUVs") for nonsubject imports (including imports from Mexico) were higher than AUVs for both the domestic like product and subject imports. CR/PR at Table C-4.

²³⁵ As discussed above, OCTAL claims that there is attenuated competition between PET sheet from Oman and domestically produced PET sheet due to OCTAL Oman's direct-to-sheet manufacturing process, which results in superior physical characteristics that PET sheet customers find important, including better clarity, formability, product uniformity, and viscosity. *See e.g.*, OCTAL's Postconf. Br. at 17-20. OCTAL also argues that its production method has a lower carbon footprint, leading some purchasers to prefer its products. *See e.g.*, OCTAL's Postconf. Br. at 21-23. OCTAL further emphasizes that it has much larger production capacity at its facility in Oman than domestic producers of PET sheet, thereby allowing it to meet the needs of larger-volume customers that the domestic industry cannot satisfy. *See e.g.*, OCTAL's Postconf. Br. at 23. As an exhibit to its postconference brief, OCTAL also submits a sworn declaration from a purchaser of subject merchandise from OCTAL. This affidavit explains the purportedly significant differences between subject merchandise from Oman and domestically produced PET sheet. *See* OCTAL's Postconf. Br. at Exh. 3. This purchaser, however, did not submit the purchaser questionnaire issued to it by the Commission in the preliminary phase of these investigations. In any final phase of the investigations, we will further examine the degree to which there may be attenuated competition between domestically produced PET sheet and subject imports.

VIII. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports of PET sheet from Korea and Oman that are allegedly sold in the United States at LTFV. We find that subject imports of PET sheet from Mexico that are allegedly sold in the United States at LTFV are negligible and terminate the antidumping duty investigations on imports of PET sheet from Mexico.²³⁶

²³⁶ Commissioner Stayin determines that there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports from Korea, Mexico, and Oman that are allegedly sold in the United States at LTFV.

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, and Oman. The following tabulation provides information relating to the background of these investigations.^{2 3}

Effective date	Action
July 9, 2019	Petitions filed with Commerce and the Commission; institution of Commission investigations (84 FR 33785, July 15, 2019)
July 29, 2019	Commerce’s notice of extension of the deadline for its initiation determinations (84 FR 39801, August 12, 2019) ⁴
July 30, 2019	Commission’s conference
July 31, 2019	Commission’s revised scheduling (84 FR 38296, August 6, 2019)
August 19, 2019	Commerce’s notice of initiation (84 FR 44854, August 27, 2019) ⁴
September 10, 2019	Commission’s vote
September 13, 2019	Commission’s determinations
September 20, 2019	Commission’s views

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

³ A list of witnesses appearing at the conference is presented in appendix B of this report.

⁴ 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.

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the “Act”) (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--
shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--⁵

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

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

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—⁶

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

Organization of report

Part I of this report presents information on the subject merchandise, alleged 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 leading producers of PET sheet outside the United States include *** of Korea, *** of Mexico, and OCTAL SAOC FZC of Oman. The leading U.S. importer of PET sheet from Korea is ***, the leading importers of PET sheet from Mexico are ***, and the leading importer from Oman is OCTAL, Inc.⁷ Leading importers of PET sheet from nonsubject countries (primarily Canada and Taiwan) include ***.⁸ U.S. purchasers of PET sheet are thermoforming firms; lead purchasers include ***.

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

⁷ OCTAL SAOC FCZ (OCTAL SAOC) is the sole foreign producer of PET sheet from Oman. Conference Transcript, p. 93 (Barenberg). OCTAL Inc. is OCTAL Oman’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).

⁸ *** did not submit U.S. Importers’ questionnaires, but were able to provide a response to question II-3b, which asks importers to report their PET sheet import quantities from July 1, 2018 to June 30,

(continued...)

Apparent U.S. consumption of PET sheet totaled approximately *** pounds (***) in 2018.⁹ Currently, 28 firms are known to produce PET sheet in the United States.¹⁰ U.S. producers' U.S. shipments of PET sheet totaled 875.7 million pounds (\$710.3 million) in 2018, and accounted for 75.2 percent of apparent U.S. consumption in quantity and 82.3 percent in value. U.S. imports from subject sources totaled *** pounds (\$***) in 2018 and accounted for *** percent of apparent U.S. consumption in quantity and *** percent in value. U.S. imports from nonsubject sources totaled *** (***) in 2018 and accounted for *** percent of apparent U.S. consumption in quantity and *** percent in value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, table C-1. U.S. industry data are based on questionnaire responses of 22 firms that accounted for 76.4 percent of U.S. production of PET sheet during 2018. U.S. imports are based on *** records using statistical reporting number 3920.62.0090 and importer questionnaire responses that accounted for *** percent of 2018 U.S. imports from Korea, *** percent of 2018 U.S. imports from Mexico, *** percent of 2018 U.S. imports from Oman, *** percent of 2018 U.S. imports from nonsubject countries, and *** percent of total 2018 U.S. imports reported under HTS statistical reporting number 3920.62.0090.¹¹ Given that foreign producer questionnaires reported a higher quantity of PET sheet exports from Mexico to the United States than importer questionnaires reported U.S. imports of PET sheet from Mexico, the data on imports of PET sheet from Mexico are alternately presented in *Part IV*, when indicated, based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by responding U.S. importers of PET sheet from Mexico, multiplied by foreign producers' quantities.

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

(...continued)

2019. *** imported *** pounds of PET sheet from nonsubject sources during this period, and *** imported *** pounds of PET sheet from nonsubject sources during this period, making *** the ***, and *** the *** largest importers of PET sheet from nonsubject sources, based on responses collected from importers to question II-3b.

⁹ Apparent consumption quantities and values are understated, as they are based on questionnaire responses, which accounted for an estimated 76.4 percent of total 2018 U.S. production of PET sheet, and an estimated *** percent of total 2018 U.S. imports of PET sheet.

¹⁰ An additional firm, ***, was identified as a potential U.S. producer of PET sheet by parties. However, USITC staff was unable to confirm this due to *** unresponsiveness. ***, estimated that *** 2018 production capacity was *** pounds. Email from ***, to USITC investigator, July 19, 2019.

¹¹ This HTS statistical reporting number contains out of scope product.

¹² Petition, p. 4

NATURE AND EXTENT OF ALLEGED SALES AT LTFV

Alleged sales at LTFV

On August 27, 2019, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on PET sheet from Korea, Mexico, and Oman.¹³ Commerce has initiated antidumping duty investigations based on estimated dumping margins of 44.13 and 52.01 percent for PET sheet from Korea, 27.60 to 115.46 percent for PET sheet from Mexico, and 75.02 and 114.43 percent for PET sheet from Oman.

THE SUBJECT MERCHANDISE

Commerce's scope

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

PET sheet covered by these investigations is 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.

PET sheet subject to these investigations 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.¹⁴

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 of the Harmonized Tariff Schedule of the United States ("HTS"). The 2019 general rate of duty is 4.2 percent *ad valorem*. Under free

¹³ *Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 84 FR 44854, August 27, 2019.

¹⁴ *Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 84 FR 44854, August 27, 2019.

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 0.8 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. While the HTS statistical reporting number is provided for convenience and customs purposes, the written description of the scope of these investigations is dispositive.

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).¹⁵

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 silicon coating is commonly added to ease downstream processing, including de-nesting of formed PET trays, cups, blisters, and other packaging.¹⁶ The finished PET sheet is commonly sold in a roll that is typically banded with PET strapping.¹⁷ 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.¹⁸

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.¹⁹ 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

¹⁵ Petition, p. 5; Respondent OCTAL's postconference brief, Exhibit 1, p. 4.

¹⁶ Petition, p. 5.

¹⁷ 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 August 28, 2019; Plastofine, "Polyester strap," n.d., <http://www.plastofine.com/polyester-strap.html> retrieved August 28, 2019.

¹⁸ Petition, pp. 7-8.

¹⁹ Petition, p. 6.

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.²⁰ 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 transverse direction in a heated oven. PET film must be re-crystallized (or "heat set") after drawing.²¹ Another difference between sheet and film is the property of intrinsic viscosity (IV).²² 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.^{23 24}

Manufacturing processes

In 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")²⁵ 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.²⁶ In MTR technology, no solid state crystallizer is used, which eliminates the cost of that equipment.²⁷ The MTR process has lower residence time, resulting in minimal generation

²⁰ 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/> retrieved August 28, 2019; Plastofine, "Polyester strap," n.d., <http://www.plastofine.com/polyester-strap.html> retrieved August 28, 2019.

²¹ Petition, p. 6.

²² Intrinsic viscosity is defined as the solution intrinsic viscosity per ASTM D4603.

²³ Transcript, p. 75 (DeBode); Petitioners' postconference brief, Exhibit 1, p. 3.

²⁴ Gupta, V.B. and Bashir, Z. (2002) Chapter 7 in Fakirov, Stoyko (ed.) *Handbook of Thermoplastic Polyesters*, Wiley-VCH, Weinheim.

²⁵ Petition, p. 4.

²⁶ Uhde Inventa-Fischer, "MTR Melt-To Resin Technology for cost-efficient, energy saving production of high-quality PET," <https://www.tkirus.com/assets/pdf/brochures/en/TKIS-MTR-en.pdf>, retrieved August 16, 2019.

²⁷ Ibid; Plastemart, "A new technology offers cost benefit to PET producers," <http://www.plastemart.com/upload/Literature/New-technology-offers-cost-benefit-to-PET-producers.a> sp, retrieved August 16, 2019.

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 compared to cylinder shaped output.²⁸ This leads to lower dust generation and lower IV drop 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.”²⁹ 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.³⁰ 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. Recycled PET chips may also come from reclaimed post-consumer PET material, such as bottles.³¹

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 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 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.³²

²⁸ The final output product of the PET resin is in the shape of a sphere or cylinder.

²⁹ Transcript, pp. 76-77 (Pariso), p. 77 (Thibado), p. 77 (Graczyk); Petitioner's postconference brief, Exhibit 1, p. 18.

³⁰ Petition, p. 5; Oxford dictionary, retrieved August 16, 2019.

³¹ Petition, p. 5.

³² Petition, p. 7.

The sole producer from Oman utilizes a Melt to Resin technology for PET resin, and then produces its “direct” PET (D-PET) sheet product.³³ 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.³⁴ The producer in Oman currently has four U.S. patents on this sheet process, which are currently in effect.³⁵ OCTAL reports electrical energy in the production process is reduced by 65 percent, and the resulting PET sheet has different physical properties.³⁶ When the production 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.^{37 38}

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations. The petitioner proposes 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.³⁹

³³ OCTAL’s postconference brief, p. 18.

³⁴ Conference transcript, p. 150 (Barenberg).

³⁵ Patent No. 7,931,842 (expires 11/8/2024), Patent No. 9,011,737 (expires 12/20/2024), Patent No. 8,986,587 (expires 11/21/2027), and Patent No. 8,545,205 (expires 11/8/2024).

³⁶ OCTAL’s postconference brief, pp. 21-22. 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.

³⁷ Thermoforming is a process by which heat, vacuum, pressure and/or mechanical processes to force PET sheet against contours of a mold. Petitioner’s postconference brief, Exhibit 1, p. 16.

³⁸ Conference transcript, p. 35-36 (Ringel); p. 64 (Gracyzyk, Debode, Thibado)

³⁹ Conference transcript, p. 11 (Porter) and Respondent OCTAL’s postconference brief, p. 18, fn. 28.

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

U.S. MARKET CHARACTERISTICS

Almost all PET sheet is thermoformed¹ 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 has a number of useful characteristics including visual properties, barrier to gasses and oils, impact and tear resistance, thermal stability, and recyclability.³ Apparent U.S. consumption of PET sheet increased during January 2016-June 2019. Overall, apparent U.S. consumption in 2018 was *** percent higher than in 2016.

CHANNELS OF DISTRIBUTION

U.S. producers and importers sold mainly to end users, as shown in table II-1. Internal consumption represented the majority of U.S. total shipments, but less than one percent of reported subject import shipments of PET sheet.

Table II-1

PET sheet: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, January 2016-June 2019

* * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers reported selling PET sheet to all regions in the contiguous United States (table II-2). Importers from Korea reported selling to ***; importers from Mexico reported shipping to ***; and importers from Oman reported selling to ***. For U.S. producers, 34.9 percent of sales were within 100 miles of their production facility, 44.4 percent were between 101 and 1,000 miles, and 20.7 percent were over 1,000 miles. Importers sold 27.7 percent within 100 miles of their U.S. point of shipment, 57.7 percent between 101 and 1,000 miles, and 14.6 percent over 1,000 miles.

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

² Conference transcript, p. 127 (Barenberg).

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).

Table II-2

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

Region	U.S. producers	Subject U.S. importers			
		Korea	Mexico	Oman	Subject
Northeast	9	***	***	***	3
Midwest	11	***	***	***	4
Southeast	8	***	***	***	3
Central Southwest	6	***	***	***	2
Mountains	8	***	***	***	2
Pacific Coast	9	***	***	***	3
Other ¹	---	***	***	***	---
All regions (except Other)	5	***	***	***	1
Reporting firms	12	***	2	1	4

¹ 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. A number of foreign producers reported that they could shift production to other types of plastic, however, none of them actually produced other products. The petitioners report that they do not use PET sheet equipment for other polymers because different resins have different viscosities, therefore the machines need to be modified for the viscosity of the polymer. These modifications can be expensive.⁴ Therefore, firms' reported ability to shift to alternative products may overstate their ability to shift production on the same equipment. U.S. producer *** reported that changeover time, and "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 labor and cost to switch production to other materials, but that it is the "nature of the business."

Table II-3

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

* * * * *

⁴ Conference transcript, p. 63 (Parsio). Petitioners stated that the ***. See staff email with ***, August 12, 2019.

Domestic production

Based on available information, U.S. producers of PET sheet have the ability to respond to changes in demand with moderate-to-large 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 is the availability of unused capacity and the 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.

Both production and capacity increased during 2016-18, however, production increased more than capacity, resulting in increased capacity utilization. Export markets reported were Canada, ***. Other products that producers reportedly can produce on the same equipment as PET sheet are polypropylene, polystyrene, HIPS (high impact poly styrene), HDPE (high density polyethylene), and plastics that can be composted (PLA (polylactic acid), CPLA (crystalized PLA), and PSM (plastarch material)). Factors affecting U.S. producers' ability to shift production include customer demand, material feeding setup and equipment changes to run other products, costly training and inefficiencies due to inexperienced labor, costly cleanout between materials, and equipment specifically designed for PET sheet production.

Subject imports from Korea

Based on the one firm that responded, and that represents less than 25 percent of U.S. imports, producers of PET sheet from Korea have the ability to respond to changes in demand with large changes in the quantity of shipments of PET sheet to the U.S. market. The main contributing factor to this degree of responsiveness of supply is moderate capacity utilization. Factors mitigating responsiveness of supply include low inventories and no reported exports to other countries.

Korean capacity did not change between 2016 and 2018, while production increased, causing capacity utilization to rise. No barriers were reported to shifting between markets. The Korean producer reported that ***.

Subject imports from Mexico

Based on available information, producers of PET sheet from Mexico have the ability to respond to changes in demand with large 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 is the availability of a moderate capacity utilization. Factors mitigating responsiveness of supply include the lack of exports to other markets and, limited actual ability to shift production to other products on the same equipment.

Mexican capacity did not change between 2016 and 2018 while production and capacity utilization increased. Mexico reports no export market other than the United States in 2018.

Two Mexican producers reported they were able to produce other products on the same equipment, ***. The other Mexican producer reported that it ***.⁵

Subject imports from Oman

Based on available information, the producer of PET sheet from Oman has the ability to respond to changes in demand with large 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 unused capacity, the availability of inventories, and the ability to shift shipments from alternate markets. Factors mitigating responsiveness of supply include higher capacity utilization than other sources, and limited ability to shift production to or from alternate products.

OCTAL SAOC's capacity in Oman decreased *** between 2016 and 2018 and production increased ***.⁶ Other export markets include ***. OCTAL SAOC reported that it could *** PET sheet production.

Respondent OCTAL argues that the "modest" increase in inventories of PET sheet from Oman reflect planning for temporary shutdown in the summer of 2019 for further repairs from the cyclone damage sustained during the summer of 2018 and that there are no plans to "significantly" increase shipments to the United States.⁷

Imports from nonsubject sources

Nonsubject imports accounted for *** percent of total U.S. imports in 2018.⁸ The largest sources of nonsubject imports during January 2016-June 2019 was Canada. It is not possible to determine Canada's share of nonsubject imports because the HTS is a basket category.

Supply constraints

Four of 20 responding U.S. producers and 1 of 10 responding importers reported that they had experienced supply constraints since January 1, 2016. Constraints on product from Oman included supply disruptions to U.S. customers caused by Cyclone Mekunu which caused OCTAL SAOC's PET sheet factory to close for six weeks in 2018.⁹ U.S. producer *** reported supply was constrained because of a shortage of raw materials in 2017. U.S. producer ***. 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 is unable to keep up with demand.

⁵ These other products ***.

⁶ Respondent OCTAL stated that, because its production was halted during May-July 2018 due to a destructive cyclone, it was unable to supply its product to U.S. customers during Q3 2018. Respondent's postconference brief, p. 16.

⁷ Respondent OCTAL's postconference brief, p. 41.

⁸ Nonsubject imports plus imports from Mexico accounted for 7.6 percent of U.S. imports in 2018.

⁹ Conference transcript, p. 12 (Porter).

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 will have production processes developed to use this particular plastic. The cost of PET sheet is a large share of the cost of containers made from PET sheet, however, it is a small share of the cost of the consumer product.

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, fruit and vegetable trays and 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.¹⁰ End uses reported by firms include food and other consumer packaging.

Respondents estimate that *** percent of OCTAL's sheet is used for bakery products, *** percent for food service, and *** percent for produce.¹¹

PET sheet accounts for a large share of the cost of the end-use products in which it is used (that is the containers), however, it would be a much smaller share of the filled containers that are sold to the consumer. Reported cost shares for some end uses were as follows: food packaging 15 to 80 percent; thermoformed packaging/products/parts 22 to 64 percent; clamshells 61 to 75 percent; folding boxes 35 percent; consumer/retail packaging 5 to 15 percent; and lids 72 percent.¹²

Parties disagree as to 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 state this is where the decision is made between PET sheet and other products.¹³ Petitioners, however, state that there are few substitutes for PET sheet and competition comes from imported PET sheet not from other types of plastic.¹⁴

Business cycles

Five of 14 U.S. producers and 2 of 8 importers indicated that the market was subject to business cycles. Specifically, PET resin prices spike in the summer as PET resin consumption in water/drink bottles increase (increasing the cost of producing PET sheet), there is higher PET

¹⁰ Petition p. 5.

¹¹ Respondent OCTAL's postconference brief, ex. 1, p. 4.

¹² 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.

¹³ Conference transcript, pp. 130-131 (Porter).

¹⁴ Conference transcript, p. 69 (Ringel).

sheet demand in the spring and summer due to agricultural markets, there is higher PET sheet demand in May through December because of packaging needs, and there is higher PET sheet demand in the second half of the year.

Three of 14 U.S. producers, but no importers, indicated that the market was subject to other conditions distinctive to the PET sheet market. Specifically, these firms reported imports, “bottle season” (the price of PET resin tends to be higher during the spring and early summer because of the large amount of PET resin used in bottles), and cost of PET resin all were distinctive conditions of competition.

Five of eight responding producers and one of three responding importers reported changes in cycles or conditions of competition since January 1, 2016. Specifically, PET sheet costs have fallen because of manufacturing economies, imports have put pressure on prices, imports have grown, competition has become “more extreme,” and there was a major disruption in Oman’s production which created a window for U.S. producers to sell.

Seven of 14 responding producers and 1 of 6 responding importers reported that PET resin producer M&G’s bankruptcy had an impact on their PET sheet operations. Specifically the bankruptcy increased the cost of U.S. produced PET resin relative to imported PET resin, reduced the supply, increased raw material costs over 20 percent, and increased the cost of producing downstream products (which one firm reported it was not able to recoup).¹⁵

Demand trends

Half the responding firms reported an increase in U.S. demand for PET sheet since January 1, 2016 (table II-4).

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

* * * * *

Substitute products

Substitutes for PET sheet are limited. Most U.S. producers (14 of 16 responding) and importers (8 of 11 responding) reported that there were no substitutes. *** reported that polystyrene and polypropylene were substitutes for PET sheet, and that food retailers can switch between them relatively easily. The price of these substitutes therefore did influence the price of PET sheet.

Petitioners state that “our PET sheet customers have no interest in switching to other plastic material like polystyrene or polypropylene or PVC.”¹⁶

Respondents state that Starbucks substituted polypropylene for PET sheet in their cups for cold drinks because of the high cost of PET sheet.¹⁷ Respondents report that polypropylene

¹⁵ U.S. producer ***.

¹⁶ Conference transcript, p. 19 (Grayczyk).

¹⁷ Conference transcript, p. 111 (Pyland).

is currently a substitute for PET sheet in the production of *** for food service, *** for bakeries, and ***.¹⁸ Respondents claim that the cost of PET sheet for a thermoformer is more than half of the cost of the product the thermoformers produce.¹⁹ According to the respondents, price is important in the decision to purchase containers made from PET sheet or other plastic sheet.²⁰

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported PET sheet depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, formability, etc.), and conditions of sale (e.g., price discounts/rebates, 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 93.8 percent of their commercial shipments were produced-to-order, with lead times averaging 17 days.²¹ Importers reported that all of their commercial shipments were produced-to-order, with lead times averaging 68 days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations²² were asked to identify the main purchasing factors their firm considered in their purchasing decisions for PET sheet. The major purchasing factors identified by firms include quality (physiochemical properties of the material, clarity, and ease of reuse of regrind), price, and availability (delivery and lead time). Purchaser ***²³ reported that it purchases PET sheet from Oman because of OCTAL SAOC's unique product that is of higher quality and the resulting regrind *** which leads to "a legitimate cost-advantage." Additionally, this purchaser reported that it experienced significant quality issues with its U.S. supplier ***.

¹⁸ Respondent OCTAL's postconference brief, ex. 1, attachment B.

¹⁹ Conference transcript, pp. 131-132 (Barenberg).

²⁰ Conference transcript, pp. 130-131 (Porter).

²¹ The remaining 6.2 percent of their commercial shipments came from inventories, with lead times averaging 3 days.

²² This information is compiled from responses by purchasers identified by Petitioners in the lost sales lost revenue allegations. See Part V for additional information.

²³ ***.

OCTAL claims that many retailers have set goals to reduce their carbon footprint²⁴ and one of the ways they can do this is to use packaging with a lower carbon footprint. OCTAL reports that PET sheet from its Oman facility has a lower carbon footprint than PET sheet from other firms' facilities, and some purchasers prefer it for this reason.²⁵ Respondent OCTAL also argues that the largest PET sheet purchasers (accounting for more than *** percent of all PET sheet purchases) do not rank price as the most important purchase consideration, and customers accounting for *** purchases of Oman PET sheet rank other factors as more important than price.²⁶

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, Mexico, and Oman, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-5, most responding producers and most responding importers reported that PET sheet from all country pairs was always interchangeable. *** reported that product from Oman has unique clarity, quality, thickness control, environmental footprint, and cost, and that product from Oman was never interchangeable with product from other countries. Other reported differences included Oman lacked recycled content, had longer lead-times but was higher quality, and Korean product differed from U.S. product because the Korean producer could provide product that was compatible with the purchaser's core relatively quickly.²⁷

²⁴ Conference transcript, pp. 109-110 (Pyland).

²⁵ Conference transcript, pp. 110-111 (Pyland).

²⁶ Respondent OCTAL's postconference brief, p. 29.

²⁷ PET resin is sold in rolls, the cores of these rolls are usually 6 inches, but 3 inch cores are also common. Conference transcript, pp 63-64 (Grayczyk, Debode, Thibado, and Parsio).

Table II-5
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			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. Korea	12	3	---	---	5	1	1	---
U.S. vs. Mexico	13	2	---	---	6	---	---	---
U.S. vs. Oman	13	3	1	1	3	---	---	1
Subject countries comparisons:								
Korea vs. Mexico	10	1	---	---	4	---	---	---
Korea vs. Oman	9	2	---	1	3	---	---	1
Mexico vs. Oman	10	1	---	1	3	---	---	1
Nonsubject countries comparisons:								
U.S. vs. nonsubject	10	1	1	---	4	---	---	---
Korea vs. nonsubject	9	1	---	---	4	---	---	---
Mexico vs. nonsubject	9	1	---	---	4	---	---	---
Oman vs. nonsubject	8	1	1	1	3	---	---	1

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

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

Respondents report that there is limited interchangeability between U.S.-produced PET sheet and PET sheet imported from Oman. The difference is the result of OCTAL SAOC’s direct-to-sheet production method. This production method eliminates “energy-intensive”²⁸ steps needed to produce PET resin pellets, reducing production costs. OCTAL reports that this production method improves optical properties (gloss, clarity, color and haze), reduces molecular wear and tear, and increases precision thickness of sheet (reducing the need to readjust machines between rolls and allowing thermoformers to use thinner PET sheet reducing overall plastic consumption), improves forming quality (crack resistance), and increases the value of scrap produced.²⁹ OCTAL also reported that purchasing PET sheet from Oman allows large purchasers to simplify their supply since OCTAL SAOC could provide a much larger volume of PET resin than any U.S. producer.³⁰

Petitioners respond that PET sheet from Oman is interchangeable with PET sheet produced in the United States. Petitioners claim that no customer required PET sheet from Oman on their equipment or to make downstream products.³¹ Petitioners state that purchasers can readily substitute “PET sheet produced by several U.S. producers for imports from Oman.”³²

²⁸ Respondent’s postconference brief, p. 18.

²⁹ Conference transcript, pp. 95-98 (Barenberg); Respondent’s postconference brief, p. 19.

³⁰ Conference transcript, p. 139 (Barenberg).

³¹ Conference transcript, pp. 32-33 (Debode).

³² Conference transcript, p. 43 (Ringel).

In addition, producers and importers 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-6, most responding producers reported that there were either sometimes or never differences other than price for all country pairs. Most responding importers reported that there were never differences other than price for all country pairs that did not include Oman. Two importers compared Korea vs Oman, Mexico vs Oman, and Oman vs other for each pair, one reported there were always and one reported there were never important differences other than price. Three importers compared U.S. produced PET sheet with PET sheet produced in Oman, one each reported there were always, sometimes, and never important differences other than price. Differences other than price included consistency and reusability, and Korean product had lower transportation costs. Product from Oman was reported to be superior because its PET sheet is clearer, more consistent, has a better silicone application than U.S.-produced, and because Omani regrind is easier to use. In addition, U.S. suppliers were reported to have quality issues, and product from Oman has transportation network problems.

Table II-6
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			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. Korea	1	1	5	7	---	1	3	3
U.S. vs. Mexico	1	1	5	7	---	---	3	2
U.S. vs. Oman	4	1	6	6	1	---	1	1
Subject countries comparisons:								
Korea vs. Mexico	---	---	3	7	---	---	---	2
Korea vs. Oman	1	---	4	5	1	---	---	1
Mexico vs. Oman	2	---	3	5	1	---	---	1
Nonsubject countries comparisons:								
U.S. vs. nonsubject	1	---	4	6	---	---	1	2
Korea vs. nonsubject	---	---	3	6	---	---	---	2
Mexico vs. nonsubject	---	---	4	5	---	---	---	2
Oman vs. nonsubject	1	---	4	4	1	---	---	1

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

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

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 22 firms that accounted for 76.4 percent¹ of U.S. production of PET sheet during 2018.

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 35 firms, including nine firms that were identified in the petition and 26 firms that were later identified by ***.² Twenty-two firms provided usable data on their productive operations.³ Staff believes that these responses represent 76.4 percent of U.S. production of PET sheet.

¹ This percentage might be overstated, as one potential producer of PET sheet, ***, was not responsive to staff's multiple outreach attempts, and was not considered in staff's calculation. ***, estimated that *** 2018 production capacity was *** pounds. Email from ***, to USITC investigator, July 19, 2019. Assuming *** is a U.S. PET sheet producer, the respondent's capacity estimate is accurate, and *** operated at full capacity in 2018, questionnaire responses would account for *** percent of 2018 U.S. production of PET sheet.

² Email from ***, to USITC investigator, July 19, 2019.

³ Of the 35 potential U.S. producers identified, 22 submitted usable questionnaire responses; six certified they had not produced PET sheet in the U.S. since January 1, 2016; five confirmed they are U.S. producers, but were only able to report 2018 production and capacity quantities; one firm's questionnaire response (***) was not used because it only provided 2018 production, trade, and employment data; and one firm, ***, was unresponsive to all staff outreach attempts. The five firms that only provided 2018 capacity and production quantities include: *** produced *** pounds, with a capacity of ***. See EDIS document number 686737.

Table III-1 lists U.S. producers of PET sheet, their production locations, positions on the petition, and shares of total production.⁴

Table III-1

PET sheet: U.S. producers of PET sheet, their positions on the petition, production locations, and shares of reported production, 2018

Firm	Position on petition	Production location(s)	Internal consumption, only, commercial sales only, or mixed	Share of production (percent)
Advanced Extrusion	Petitioner	Rogers, MN	Commercial	***
D&W	***	Elk Grove Village, IL Ft Calhoun, NE	Internal consumption	***
Dart Container	***	Chicago, IL Ada, OK Urbana, IL Randleman, NC Leolo, PA Conyers, GA	Internal consumption	***
Direct Pack	***	Sun Valley, CA	Internal consumption	***
Ex-Tech	Petitioner	Richmond, IL	Commercial	***
Farber	***	Freeport, NY	Commercial	***
Global Plastics	***	Perris, Ca	Mixed	***
Mercury Plastics	***	Chicago, IL	Internal consumption	***
Multi Plastics	Petitioner	Hazleton, Pa	Commercial	***
Nan Ya	***	Wharton, TX	Commercial	***
Octal Extrusion	***	Cincinnati, OH	Mixed	***
Panoramic	***	Janesville, WI	Internal consumption	***
PinnPack	***	Oxnard, Ca.	Internal consumption	***
Placon	***	Madison, WI	Mixed	***
Plastic Ingenuity	***	Cross Plains, WI Mazomanie, WI Maumelle, AR Oxford, NC	Internal consumption	***
Primex	***	Garfield, NJ	Commercial	***

Table continued on next page.

⁴ *** questionnaire, which was not used, reported that it *** on the petitions; had production locations in ***, *** its' PET sheet production; and represented *** percent of total 2018 U.S. production.

Table III-1 – Continued

PET sheet: U.S. producers of PET sheet, their positions on the petition, production locations, and shares of reported production, 2018

Firm	Position on petition	Production location(s)	Internal consumption, only, commercial sales only, or mixed	Share of production (percent)
Pro Ex Extrusion	***	Oshkosh, WI	Commercial	***
rePlanet	***	Visalia, CA	Internal consumption	***
Royal Interpack	***	Riverside, CA	Mixed	***
Sonoco	***	Exeter, CA Wilson, NC Yakima, WA Hollister, CA Plant City, FL Elk Grove Village, IL	Mixed	***
Spartech	***	Sheboygan Falls, WI Muncie, IN	Mixed	***
Waddington	*** *** ***	Chattanooga, TN	Internal consumption	***
Commercial sales only				***
Internal consumption only				***
Mixed (commercial sales and internal consumption)				***
Total				***

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

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms of PET sheet.

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

* * * * *

As indicated in table III-2, *** U.S. producers are related to foreign producers of the subject merchandise and *** U.S. producers are related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, *** U.S. producers directly import PET sheet from subject sources and *** purchase PET sheet from U.S. importers.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2016. Twelve expansions, five prolonged shutdowns or curtailments, two plant closings, one acquisition, and one relocation were reported.

Table III-3
PET sheet: U.S. producers' reported changes in operations, since January 1, 2016

* * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. From 2016 to 2018, eleven of the 22 responding U.S. producers reported unchanged capacity, ten reported increases in capacity,⁵ and one reported a decrease in capacity, for an overall increase of 21.4 percent, and capacity was 6.3 percent higher in interim 2019 than in interim 2018.⁶ Fifteen U.S. producers reported increases in PET sheet production from 2016 to 2018,⁵ seven reported decreases, for an overall increase of 24.2 percent from 2016 to 2018. Production was also 11.4 percent higher in interim 2019 than in interim 2018. Capacity utilization increased from 2016 to 2018 by 1.7 percentage points, and was 3.4 percentage points higher in interim 2019 than in interim 2018. Nine firms only internally consume PET sheet, seven firms only commercially sell PET sheet, and six do both. Firms that only internally consumed PET sheet had an *** percent increase in capacity and *** percent increase in production from 2016 to 2018. Firms that only sold PET sheet commercially had a *** percent increase in capacity and a *** percent increase in production from 2016 to 2018. Firms that both internally consumed and sold PET sheet commercially had an increase in capacity of *** percent and an increase in production of *** percent from 2016 to 2018.

⁵ Two firms' *** capacity and production increased from ***.

Table III-4

PET sheet: U.S. producers' production, capacity, and capacity utilization, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Capacity (1,000 pounds)				
Advanced Extrusion	***	***	***	***	***
D&W	***	***	***	***	***
Dart Container	***	***	***	***	***
Direct Pack	***	***	***	***	***
Ex-Tech	***	***	***	***	***
Farber	***	***	***	***	***
Global Plastics	***	***	***	***	***
Mercury Plastics	***	***	***	***	***
Multi Plastics	***	***	***	***	***
Nan Ya	***	***	***	***	***
Octal Extrusion	***	***	***	***	***
Panoramic	***	***	***	***	***
PinnPack	***	***	***	***	***
Placon	***	***	***	***	***
Plastic Ingenuity	***	***	***	***	***
Primex	***	***	***	***	***
Pro Ex Extrusion	***	***	***	***	***
rePlanet	***	***	***	***	***
Royal Interpack	***	***	***	***	***
Sonoco	***	***	***	***	***
Spartech	***	***	***	***	***
Waddington	***	***	***	***	***
Producers with only commercial sales (CS)	***	***	***	***	***
Producers with only internal consumption (IC)	***	***	***	***	***
Producers with mix of CS/IC	***	***	***	***	***
Total capacity	922,152	958,238	1,119,867	265,596	282,398

Table continued on next page.

Table III-4 – Continued

PET sheet: U.S. producers' production, capacity, and capacity utilization, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Production (1,000 pounds)				
Advanced Extrusion	***	***	***	***	***
D&W	***	***	***	***	***
Dart Container	***	***	***	***	***
Direct Pack	***	***	***	***	***
Ex-Tech	***	***	***	***	***
Farber	***	***	***	***	***
Global Plastics	***	***	***	***	***
Mercury Plastics	***	***	***	***	***
Multi Plastics	***	***	***	***	***
Nan Ya	***	***	***	***	***
Octal Extrusion	***	***	***	***	***
Panoramic	***	***	***	***	***
PinnPack	***	***	***	***	***
Placon	***	***	***	***	***
Plastic Ingenuity	***	***	***	***	***
Primex	***	***	***	***	***
Pro Ex Extrusion	***	***	***	***	***
rePlanet	***	***	***	***	***
Royal Interpack	***	***	***	***	***
Sonoco	***	***	***	***	***
Spartech	***	***	***	***	***
Waddington	***	***	***	***	***
Producers with only commercial sales (CS)	***	***	***	***	***
Producers with only internal consumption (IC)	***	***	***	***	***
Producers with mix of CS/IC	***	***	***	***	***
Total production	705,126	760,210	875,573	193,249	215,199

Table continued on next page.

Table III-4 – Continued

PET sheet: U.S. producers' production, capacity, and capacity utilization, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Capacity utilization (percent)				
Advanced Extrusion	***	***	***	***	***
D&W	***	***	***	***	***
Dart Container	***	***	***	***	***
Direct Pack	***	***	***	***	***
Ex-Tech	***	***	***	***	***
Farber	***	***	***	***	***
Global Plastics	***	***	***	***	***
Mercury Plastics	***	***	***	***	***
Multi Plastics	***	***	***	***	***
Nan Ya	***	***	***	***	***
Octal Extrusion	***	***	***	***	***
Panoramic	***	***	***	***	***
PinnPack	***	***	***	***	***
Placon	***	***	***	***	***
Plastic Ingenuity	***	***	***	***	***
Primex	***	***	***	***	***
Pro Ex Extrusion	***	***	***	***	***
rePlanet	***	***	***	***	***
Royal Interpack	***	***	***	***	***
Sonoco	***	***	***	***	***
Spartech	***	***	***	***	***
Waddington	***	***	***	***	***
Producers with only commercial sales (CS)	***	***	***	***	***
Producers with only internal consumption (IC)	***	***	***	***	***
Producers with mix of CS/IC	***	***	***	***	***
Average capacity utilization	76.5	79.3	78.2	72.8	76.2

Table continued on next page.

Table III-4 – Continued

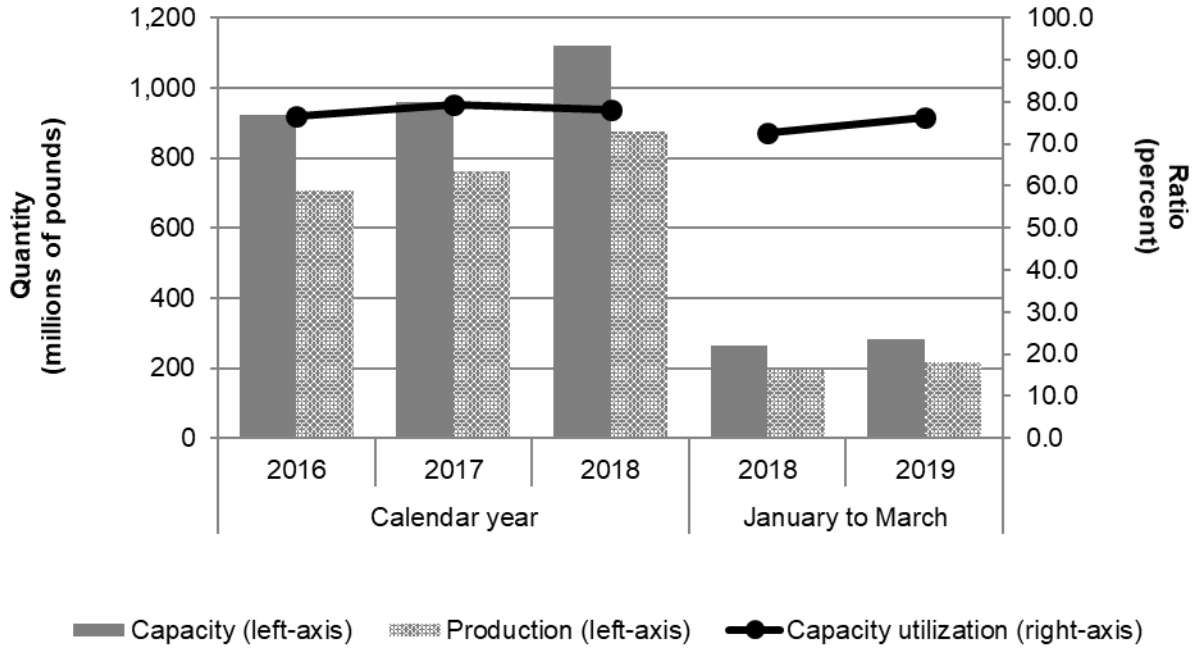
PET sheet: U.S. producers' production, capacity, and capacity utilization, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year		January to March		
	2016	2017	2018	2018	2019
	Share of production (percent)				
Advanced Extrusion	***	***	***	***	***
D&W	***	***	***	***	***
Dart Container	***	***	***	***	***
Direct Pack	***	***	***	***	***
Ex-Tech	***	***	***	***	***
Farber	***	***	***	***	***
Global Plastics	***	***	***	***	***
Mercury Plastics	***	***	***	***	***
Multi Plastics	***	***	***	***	***
Nan Ya	***	***	***	***	***
Octal Extrusion	***	***	***	***	***
Panoramic	***	***	***	***	***
PinnPack	***	***	***	***	***
Placon	***	***	***	***	***
Plastic Ingenuity	***	***	***	***	***
Primex	***	***	***	***	***
Pro Ex Extrusion	***	***	***	***	***
rePlanet	***	***	***	***	***
Royal Interpack	***	***	***	***	***
Sonoco	***	***	***	***	***
Spartech	***	***	***	***	***
Waddington	***	***	***	***	***
Producers with only commercial sales (CS)	***	***	***	***	***
Producers with only internal consumption (IC)	***	***	***	***	***
Producers with mix of CS/IC	***	***	***	***	***
Average capacity utilization	100.0	100.0	100.0	100.0	100.0

Note.—*** was unable to provide capacity and production data for 2016, so its 2017 data were used as an estimate for 2016.

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

Figure III-1
PET sheet: U.S. producers' production, capacity, and capacity utilization, 2016-18, January to March 2018, and January to March 2019



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

Alternative products

As shown in table III-5, PET sheet accounted for between 85.8 and 87.7 percent of production. Seven⁷ of the 22 responding firms reported production of other products on the same machinery as PET sheet. These products included polypropylene, polylactic acid, crystallized polylactic acid, high impact polystyrene, recycled polyethylene terephthalate glycol, high-density polyethylene, and PET greater than 45 mils.

Table III-5
PET sheet: U.S. producers' overall plant capacity and production on the same equipment as subject production, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
Quantity (1,000 pounds)					
Overall capacity	1,077,280	1,133,169	1,315,018	314,048	325,817
Production:					
PET sheet	705,126	760,210	875,573	193,249	215,199
Out-of-scope production	115,990	125,004	123,981	31,952	30,176
Total production on same machinery	821,116	885,214	999,554	225,201	245,376
Ratios and shares (percent)					
Overall capacity utilization	76.2	78.1	76.0	71.7	75.3
Share of production:					
PET sheet	85.9	85.9	87.6	85.8	87.7
Out-of-scope production	14.1	14.1	12.4	14.2	12.3
Total production on same machinery	100.0	100.0	100.0	100.0	100.0

Note.—*** was unable to provide overall capacity, PET production, and out-of-scope production data for 2016, so its 2017 data were used as an estimate for 2016.

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

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. Total shipments quantity increased by *** percent, and value by *** percent, from 2016 to 2018, and quantity was *** percent higher, and value was *** percent higher, in interim 2019 than in interim 2018. Internal consumption unit values decreased from 2016 to 2018 by 9.0 percent, while commercial shipment unit values increased by 14.9 percent during the same period. Commercial U.S. shipments' share of total shipments quantity decreased by *** percentage points, but value increased by *** percentage points, from 2016 to 2018, and quantity was *** percentage points lower, and value was *** percentage points lower, in interim 2019 than in interim 2018. Internal consumption as a share of total shipments, on the other hand, increased from 2016 to 2018, by *** percentage points in quantity, and decreased

⁷ Firms that reported production of other products using the same machinery used to produce PET sheet include: ***.

*** percentage points in value, and was *** percentage points higher in quantity, and *** percentage points higher in value, in interim 2019 than in interim 2018.

Table III-6

PET sheet: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
Quantity (1,000 pounds)					
Commercial U.S. shipments	190,120	206,193	213,110	47,425	44,175
Internal consumption	509,836	547,209	662,587	147,957	168,638
U.S. shipments	699,956	753,402	875,698	195,382	212,814
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
Value (1,000 dollars)					
Commercial U.S. shipments	148,170	160,882	190,774	40,170	37,768
Internal consumption	439,209	433,563	519,550	114,479	135,029
U.S. shipments	587,380	594,446	710,325	154,649	172,797
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
Unit value (dollars per pound)					
Commercial U.S. shipments	0.78	0.78	0.90	0.85	0.85
Internal consumption	0.86	0.79	0.78	0.77	0.80
U.S. shipments	0.84	0.79	0.81	0.79	0.81
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
Share of quantity (percent)					
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
Share of value (percent)					
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

Note.—*** was unable to provide shipment data for 2016, so its 2017 shipment data were used as an estimate for 2016.

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. Of the 22 responding U.S. producers, seven did not report any end-of-period inventories. From 2016 to 2018, end-of-period inventories held by U.S. producers decreased by 9.1 percent. End-of-period inventories were 10.7 percent higher in interim 2019 than in interim 2018. *** end-of-period inventories in interim 2019 were *** than in interim 2018. ***.⁸ The ratio of inventories to U.S. production, U.S. shipments, and total shipments remained relatively stable, ranging between *** percent from 2016 to 2018.

Table III-7
PET sheet: U.S. producers' inventories, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Quantity (1,000 pounds)				
U.S. producers' end-of-period inventories	23,707	25,843	21,543	19,731	21,837
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	3.4	3.4	2.5	2.6	2.5
U.S. shipments	3.4	3.4	2.5	2.5	2.6
Total shipments	***	***	***	***	***

Note.—*** was unable to provide end-of-period inventory, production, and shipment data for 2016, so its 2017 shipment and production data were used as an estimate for 2016, and its beginning-of-period inventory data for 2017 was used as an estimate for its end-of-period inventory for 2016.

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

U.S. PRODUCERS' IMPORTS AND PURCHASES

Thirteen of the 22 responding U.S. producers reported purchases of imported or domestically produced PET sheet. Twelve U.S. producers purchased PET sheet from other domestic sources. Seven U.S. producers reported purchases of PET sheet from Oman,⁹ one U.S. producer reported purchases of PET sheet from Mexico, and three U.S. producers reported purchases of imports from nonsubject countries.

U.S. producers' direct imports of PET sheet are presented in table III-8. Four U.S. producers imported PET sheet from subject countries, including ***; ***;¹⁰ ***;¹¹ and ***.¹²

⁸ Respondent OCTAL's postconference brief, p. 41

⁹ 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).

¹⁰ *** did not submit a U.S. producer questionnaire, and thus, is not presented in table III-8.

However, it reported in its importer questionnaire response that it imported *** pounds of PET sheet

(continued...)

*** is a net importer of PET sheet. *** imports ranged from the equivalent of *** percent of *** 2018 production, to *** percent of *** production in 2016. *** 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 January-March 2019 production.

Table III-8
PET sheet: U.S. producers' U.S. production, imports and purchases, 2016-18, January to March 2018, and January to March 2019

* * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-9 shows U.S. producers' employment-related data.¹³ U.S. producers' employment measured by production and related workers ("PRWs") increased by 44 workers from 2016 to 2017, and by 14 workers from 2017 to 2018, for an overall increase of 58 workers, or 4.1 percent, from 2016 to 2018. Total hours worked also increased from 2016 to 2018, by 39.7 percent, but were 12.6 percent lower in interim 2019 than in interim 2018. Total wages paid increased from 2016 to 2018, by 14.1 percent, but hourly wages decreased by 18.3 percent during this same period. Productivity decreased by 11.1 percent from 2016 to 2018, but was 27.5 percent higher in interim 2019 than in interim 2018. Unit labor costs fluctuated between \$0.07 to \$0.10 per pound.

(...continued)

*** 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.

¹¹ ***.

¹² *** is a U.S. producer that imported PET sheet from ***. *** did not submit an Importer or U.S. Producer Questionnaire response, however, it reported importing approximately *** pounds of PET sheet into the U.S. from July 2018 to June 2019, and produced approximately *** pounds of PET sheet in 2018. Email from *** to USITC investigator on August 15, 2019.

¹³ *** provided no employment data, and *** only provided the number of PRWs. Estimates were made for their missing data using averages as reported by all other responding U.S. producers. *** did not provide 2016 employment data, so staff used *** 2017 data as an estimate for 2016.

Table III-9

PET sheet: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	1,409	1,453	1,467	1,363	1,406
Total hours worked (1,000 hours)	3,015	3,047	4,211	827	722
Hours worked per PRW (hours)	2,139	2,097	2,870	606	514
Wages paid (\$1,000)	55,633	57,670	63,464	18,451	18,473
Hourly wages (dollars per hour)	\$18.45	\$18.93	\$15.07	\$22.32	\$25.58
Productivity (pounds per hour)	233.9	249.5	207.9	233.8	298.0
Unit labor costs (dollars per pound)	\$0.08	\$0.08	\$0.07	\$0.10	\$0.09

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

CAPTIVE CONSUMPTION

Section 771(7)(C)(iv) of the Act states that—¹⁴

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.

Transfers and sales

As reported in table III-6 above, internal consumption accounted for between *** percent (2017) and *** percent (January to March 2019), by quantity, of U.S. producers' total shipments of PET sheet during each period for which data were collected.¹⁵

¹⁴ Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

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 end uses reported included retail packaging, industrial packaging, hardware supply packaging, and medical packaging.¹⁶ No U.S. producer 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 is estimated to be 62.5 percent of the finished cost of thermoformed packaging products.¹⁷

(...continued)

¹⁵ *** did not provide shipment data for 2016, so its 2017 shipment data were used as an estimate in table III-6.

¹⁶ See U.S. Producers' Questionnaire Responses for Question IV-11.

¹⁷ U.S. producers reported 13 end uses, and importers reported 7 end uses, with corresponding estimates of its PET sheet content. Staff took a simple average of all responses to arrive at an average of 62.5 percent. See U.S. Producers' Questionnaire Responses for Question IV-11 and Importers' Questionnaire Responses to Question III-11.

PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND MARKET SHARES

U.S. IMPORTERS

The Commission issued importer questionnaires to 84 potential importers of PET sheet, as well as to all U.S. producers of PET sheet.¹ Usable questionnaire responses were received from 12 companies. These 12 questionnaire responses, in addition to 27 questionnaire responses from firms certifying they had not imported any PET sheet into the U.S. since January 1, 2016, accounted for *** percent of 2018 U.S. imports from Korea, *** percent of 2018 U.S. imports from Mexico, *** percent of 2018 U.S. imports from Oman, *** percent of 2018 U.S. imports from nonsubject countries, and *** percent of total 2018 U.S. imports reported under HTS code 3920.62.0090.² Table IV-1 shows these coverages, and coverages for negligibility calculations, which were slightly higher because five firms did not submit a full questionnaire, but did provide a response to the question required to calculate negligibility.³

Table IV-1
PET sheet: Coverage based on HTS statistical reporting number 3920.62.0090, 2018

* * * * *

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 1.0 percent of total imports under HTS code 3920.62.0090 in 2018.

² HTS code 3920.62.0090 contains some out of scope products.

³ These five companies include ***.

Table IV-2 lists all responding U.S. importers of PET sheet from Korea, Mexico, Oman, and other sources, their locations, and their shares of U.S. imports, in 2018. As table IV-2 shows, *** imports from Oman are imported by ***, *** of imports from Korea are imported by ***, and *** is the *** importer of PET sheet from Mexico.⁴

Table IV-2
PET sheet: U.S. importers by source, 2018

Firm	Headquarters	Share of imports by source (percent)					
		Korea	Mexico	Oman	Subject sources	Nonsubject sources	All import sources
3M	St. Paul, MN	***	***	***	***	***	***
Aurora Group	Walton Hills, OH	***	***	***	***	***	***
Direct Pack	Sun Valley, CA	***	***	***	***	***	***
Dongjin	Ontario, CA	***	***	***	***	***	***
HOP Industries	Lyndhurst, NJ	***	***	***	***	***	***
Intefilm	Beachwood, OH	***	***	***	***	***	***
JY Solutions	Fullerton, CA	***	***	***	***	***	***
Lacerta	Mansfield, MA	***	***	***	***	***	***
NU-B	Vaudreuil, QC	***	***	***	***	***	***
Octal Inc.	Salalah, Oman	***	***	***	***	***	***
Royal Interpack	Riverside, CA	***	***	***	***	***	***
Printex	Islandia, NY	***	***	***	***	***	***
Total		100.0	100.0	100.0	100.0	100.0	100.0

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

U.S. IMPORTS

Table IV-3 presents data for U.S. imports of PET sheet from Korea, Mexico, Oman, and all other sources. Given that the quantity of PET sheet exports from Mexico to the U.S., as reported by foreign producer questionnaire responses, was larger than the quantity of PET sheet imports from Mexico, as reported by importer questionnaire responses, the data on imports of PET sheet from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by responding U.S. importers of PET sheet from Mexico, multiplied by foreign producers' quantities.

⁴ *** did not submit U.S. importer questionnaires, but were able to provide quantities of their PET sheet imports from July 1, 2018 to June 30, 2019. *** imported *** pounds of PET sheet from nonsubject sources during this period, and *** imported *** pounds of PET sheet from nonsubject sources during this period, making *** the largest, *** the second largest, and *** the third largest importer of PET sheet from nonsubject sources, based on importer questionnaire responses to question II-3b.

Table IV-3

PET sheet: U.S. imports by source, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Quantity (1,000 pounds)				
U.S. imports from.-- Korea	***	***	***	***	***
Mexico	3,626	3,769	5,499	1,340	732
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from.-- Korea	***	***	***	***	***
Mexico	2,457	2,532	4,308	996	606
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***
	Unit value (dollars per pound)				
U.S. imports from.-- Korea	***	***	***	***	***
Mexico	0.68	0.67	0.78	0.74	0.83
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***

Table continued on next page.

Table IV-3 – Continued
PET sheet: U.S. imports by source, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Share of quantity (percent)				
U.S. imports from.--					
Korea	***	***	***	***	***
Mexico	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from.--					
Korea	***	***	***	***	***
Mexico	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--					
Korea	***	***	***	***	***
Mexico	***	***	***	***	***
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***

Note.-- U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities.

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

Figure IV-1
PET sheet: U.S. imports by source, 2016-18, January to March 2018, and January to March 2019

* * * * *

From 2016 to 2018, imports, from Korea, by quantity, increased by *** percent, and by value, by *** percent, but were *** percent lower in quantity, and *** percent lower in value, in interim 2019 than in interim 2018. Imports from Mexico also increased from 2016 to 2018, by 51.7 percent in quantity, and by 75.3 percent in value, but were 45.4 percent lower by quantity, and 39.1 percent lower by value, in interim 2019 than in interim 2018.

Imports from Oman decreased from 2017 to 2018 by *** percent in quantity, and *** percent in value. This 2018 decrease coincides with OCTAL SAOC's facility being shut down for six weeks 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 However, when comparing January to March 2018 (pre-cyclone Mekunu) to January to March 2019, imports from Oman were *** percent higher in quantity and *** percent higher in value, in interim 2019 than in interim 2018. Overall, imports from Oman decreased by *** percent in quantity, but increased by *** percent by value, from 2016 to 2018.

Unit values for Korea, Mexico, and Oman all increased from 2016 to 2018, and were higher in interim 2019 than in interim 2018. Unit values for Oman increased by *** percent, and were *** percent higher in interim 2019 than in interim 2018. Unit values for Mexico increased from 2016 to 2018, by 15.6 percent, and were 11.4 percent higher in interim 2019 than in interim 2018. Unit values for Korea increased by *** percent from 2016 to 2018, and were *** percent higher in interim 2019 than in interim 2018.

Imports from Korea increased as a share of total imports from 2016 to 2018, by *** percentage points in quantity and *** percentage points in value, and its ratio to U.S. production also increased, by *** percentage points, during this period. Imports from Mexico increased slightly as a share of total imports from 2016 to 2018, by *** percentage points in quantity, and *** percentage points in value, while it decreased as a ratio to U.S. production, by *** percentage points. From 2016 to 2018, imports from Oman decreased as a share of total imports by *** percentage points in quantity, and *** percentage points in value. However, its share of total imports by quantity was *** percentage points higher, and its share of total imports by value was *** percentage points higher, in interim 2019 than in interim 2018. The ratio of imports from Oman to U.S. production decreased by *** percentage points from 2016 to 2018. Oman's ratio to U.S. production increased by *** percentage points from interim 2018 to interim 2019, to *** percent.

⁵ Respondent OCTAL's postconference brief, pp. 15-16.

NEGLIGENCE

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 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

Table IV-4 presents the shares and quantities of imports from Korea, Mexico, and Oman during the 12-month period preceding the filing of the petition. Calculation A used importer questionnaire responses, supplemented by *** records for importers that did not respond to Commission questionnaires.⁸ Calculation B uses the same methodology as Calculation A, with the exception of the import share from Mexico, which is calculated using export quantities of PET sheet from Mexico to the United States, as reported by responding foreign producers. This alternate calculation was performed because the quantity of exports to the United States reported in foreign producer questionnaire responses was higher than the quantity of imports from Mexico reported in importer questionnaire responses. Calculation A resulted in Mexico's share of total imports in the twelve month period preceding the filing of the petition equaling *** percent, while Calculation B yielded *** percent.

Table IV-4
PET sheet: U.S. imports in the twelve month period preceding the filing of the petition, July 2018 through June 2019

* * * * *

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)).

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

⁸ *** records were not used for firms that certified they had not imported any PET sheet into the United States since January 1, 2016.

Table IV-5 presents U.S. imports from Mexico by month, from January 2018 to May 2019 to demonstrate the share of total imports from Mexico in several 12-month periods, beginning with January to December 2018, and ending with June 2018 to May 2019. The 12-month period with the highest share of imports from Mexico was from January to December 2018, at *** percent.

Table IV-5
PET sheet: U.S. imports by month, January 2018 through June 2019

* * * * *

*** data for June 2019 are not yet available. Figure IV-2 shows a slight downward trend in Mexico’s share of total imports since December 2018, which may indicate that June 2019 data will not be significantly higher than previous months.

Figure IV-2
PET sheet: Share of U.S. imports in the six months preceding the filing of the petition, December 2018 through May 2019

* * * * *

Table IV-6 presents U.S. imports from Mexico by foreign exporter in 2018, according to *** records. Three foreign producer questionnaire responses accounted for *** percent of 2018 imports reported under HTS code 3920.62.0090. Importer questionnaire responses certifying that a firm did not import PET sheet into the United States since January 2016 accounted for *** percent of 2018 imports reported under HTS code 3920.62.0090. Taken together, foreign producer questionnaire responses and importers certifying that they do not import PET sheet into the U.S., accounted for *** percent of 2018 imports reported under HTS code 3920.62.0090.

Table IV-6
PET sheet: U.S. imports from Mexico by foreign supplier, 2018

* * * * *

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 geographical markets and simultaneous presence in the market is presented below.

Geographical markets

Table IV-7 presents data on U.S. imports of PET sheet by border of entry in 2018. 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 East⁹ accounted for, by quantity, the largest share of imports of PET sheet from subject countries, at *** percent. The East also accounted for, by quantity, the largest share of imports of PET sheet from Oman, at *** percent, while the West¹⁰ accounted for, by quantity, the largest share of imports of PET sheet from Korea, at *** percent, and the South¹¹ accounted for, by quantity, the largest share of imports of PET sheet from Mexico, at *** percent.

Table IV-7
PET sheet: U.S. imports by border of entry, 2018

* * * * * * *

Presence in the market

Table IV-8 and figures IV-3 and IV-4 present monthly import statistics for PET sheet products from January 2016 to May 2019. Imports of PET sheet from Korea, Mexico, and Oman entered the United States in every month over the period.

Table IV-8
PET sheet: U.S. imports by month, January 2018 through May 2019

* * * * * * *

Figure IV-3
PET sheet: U.S. imports, by country, by month, January 2016 through May 2019

* * * * * * *

⁹ 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.

¹⁰ 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.

¹¹ The “South” includes the following Customs entry districts: Dallas-Fort Worth, Texas; El Paso, Texas; Houston-Galveston, Texas; Laredo, Texas; Miami, Florida; Mobile, Alabama; New Orleans, Louisiana; and Tampa, Florida.

Figure IV-4
PET sheet: U.S. imports, by month, January 2016 through May 2019

* * * * *

APPARENT U.S. CONSUMPTION AND U.S. MARKET SHARES FOR TOTAL MARKET

Table IV-9, Table IV-10, and Figure IV-5 present total market data on apparent U.S. consumption and U.S. market shares for PET sheet.¹² Apparent consumption increased by *** percent in quantity, and *** percent in value, from 2016 to 2018, and was *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018.¹³ U.S. producers' U.S. shipments increased by 25.1 percent in quantity and 20.9 percent in value, from 2016 to 2018, and was 8.9 percent higher in quantity, and 11.7 percent higher in value, in interim 2019 than in interim 2018.¹¹ U.S. importers' U.S. shipments from subject sources increased from 2016 to 2018 by *** percent in quantity and *** percent in value, and was *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018. U.S. importers' U.S. shipments from nonsubject sources also increased from 2016 to 2017, by *** percent in quantity, and *** percent in value, and was *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018.

¹² Apparent consumption quantities and values are understated, as they are based on questionnaire responses, which accounted for an estimated 76.4 percent of total 2018 U.S. production of PET sheet, and an estimated *** percent of total 2018 U.S. imports of PET sheet (using foreign producer questionnaire data for imports from Mexico).

¹³ U.S. producer *** did not provide 2016 shipment data, so staff used its 2017 data as an estimate for 2016.

Table IV-9
PET sheet: Apparent U.S. consumption, total market, 2016-18, January to March 2018, and
January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	2018	2019
	Quantity (1,000 pounds)				
U.S. producers' U.S. shipments	699,956	753,402	875,698	195,382	212,814
U.S. importers' U.S. shipments from.-					
- Korea	***	***	***	***	***
Mexico	3,626	3,769	5,499	1,340	732
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	587,380	594,446	710,325	154,649	172,797
U.S. importers' U.S. shipments from.-					
- Korea	***	***	***	***	***
Mexico	2,457	2,532	4,308	996	606
Oman	***	***	***	***	***
Subject sources	***	***	***	***	***
Subject sources less Mexico	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
Nonsubject sources plus Mexico	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***

Note -- U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities. U.S. producer *** did not provide 2016 shipment data, so staff used its 2017 data as an estimate for 2016.

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

Table IV-10 and figure IV-5 presents total market shares for PET sheet. Market share of U.S. producers' U.S. shipments increased in quantity, by *** percentage points, and decreased in value by *** percentage points, from 2016 to 2018. Market share of U.S. producers' U.S. shipments was *** percentage points lower in quantity, and *** percentage points lower in value, in interim 2019 than it was in interim 2018. Market share of subject imports' U.S. shipments was *** percentage points lower in quantity, and *** percentage points higher in value from 2016 to 2018. Market share of imports from nonsubject sources was *** percentage points higher in quantity, and *** percentage points higher in value, from 2016 to 2018.

Table IV-10

PET sheet: Market shares, total market, 2016-18, January to March 2018, and January to March 2019

* * * * *

Figure IV-5

PET sheet: Apparent U.S. consumption, total market, 2016-18, January to March 2018, and January to March 2019

* * * * *

APPARENT U.S. CONSUMPTION AND U.S. MARKET SHARES FOR MERCHANT MARKET

Table IV-11, Table IV-12, and Figure IV-6 present merchant market data on apparent U.S. consumption and U.S. market shares for PET sheet.¹⁴ Apparent U.S. consumption increased from 2016 to 2018 by *** percent in quantity, and *** percent in value, and was *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018.¹⁵ U.S. producers' commercial U.S. shipments increased from 2016 to 2018 by *** percent in quantity, and *** percent in value, but were *** percent lower in quantity, and *** percent lower in value, in interim 2019 than in interim 2018.¹³ U.S. shipments from subject imports increased by *** percent in quantity and *** percent in value, from 2016 to 2018, and was *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018. Nonsubject import shipments also increased from 2016 to 2018, by *** percent in quantity and *** percent in value, and were *** percent higher in quantity, and *** percent higher in value, in interim 2019 than in interim 2018.

¹⁴ Apparent consumption quantities and values are understated, as they are based on questionnaire responses, which accounted for an estimated 76.4 percent of total 2018 U.S. production of PET sheet, and an estimated *** percent of total 2018 U.S. imports of PET sheet (using foreign producer questionnaire data for imports from Mexico).

¹⁵ U.S. producer *** did not provide 2016 shipment data, so staff used its 2017 data as an estimate for 2016.

Table IV-11

PET sheet: Apparent U.S. consumption, merchant market, 2016-18, January to March 2018, and January to March 2019

* * * * *

Table IV-12 and figure IV-6 present merchant market shares for PET sheet. Merchant market share of U.S. producers' commercial U.S. shipments increased from 2016 to 2018 by *** percentage points in quantity, and decreased by *** percentage points in value, but was *** percentage points lower in quantity, and *** percentage points lower in value in interim 2019 than in interim 2018. Merchant market share of subject imports decreased from 2016 to 2018 by *** percentage points in quantity, and *** percentage points in value, but was *** percentage points higher in quantity, and *** percentage points higher in value, in interim 2019 than in interim 2018. Merchant market share of nonsubject imports increased slightly from 2016 to 2018, by *** percentage points by quantity, and *** percentage points by value, and was *** percentage points higher in quantity and *** percentage points higher in value in interim 2019 than in interim 2018.

Table IV-12

PET sheet: Market shares, merchant market, 2016-18, January to March 2018, and January to March 2019

* * * * *

Figure IV-6

PET sheet: Apparent U.S. consumption, merchant market, 2016-18, January to March 2018, and January to March 2019

* * * * *

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.¹ Figure V-1 shows Chemical Data's index of the price of PET resin from January 2016 to July 2019.² PET resin costs increased irregularly between January 2016 and September 2018, after which it declined irregularly to July 2019. The price of PET resin increased overall by *** percent between January 2016 and March 2019.

Figure V-1
PET resin: Market price of bottle grade dollars per pound, by month, January 2016-July 2019

* * * * *

U.S. inland transportation costs

Eleven of 13 responding U.S. producers and all 5 responding importers reported that they typically arrange transportation to their customers.³ Most U.S. producers reported that their U.S. inland transportation costs ranged from 1.0 to 6.5 percent while importers reported costs of 3.0 to 10.0 percent.

PRICING PRACTICES

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.

¹ Petition, p. 4. OCTAL SAOC Oman reports that it produces most of its PET sheet directly from PET resin in liquid form (D-PET). Conference transcript, pp. 95-96 (Barenberg).

² OCTAL reports using a pricing formula in its contracts based on Chemical Data's index. Conference transcript, p. 113 (Pyland).

³ A number of producers and importers reported that they internally consumed or sold to related parties all the PET sheet that they produced or imported. Their responses to the questions about selling PET sheet have been removed, because they do not sell PET sheet but instead sell a downstream product.

Table V-1

PET sheet: U.S. producers' and importers' reported price setting methods, by number of responding firms¹

Method	U.S. producers	U.S. importers
Transaction-by-transaction	12	5
Contract	3	2
Set price list	3	1
Other	---	1
Responding firms	12	7

¹ 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 of their PET sheet in the spot market while importers sold *** of their product using long-term contracts and *** in the spot market. As shown in table V-2, U.S. producers and importers reported their 2018 U.S. commercial shipments of PET sheet by type of sale. Respondent OCTAL reported selling using long-term contracts that contain a pricing formula indexed to published PET resin prices.⁴ It also stated that virtually all of its 2018 shipments were to a few customers with pricing based on the price formulas established earlier in the period of investigation.⁵

Table V-2

PET sheet: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2018

* * * * *

Five producers reported the characteristics of their short-term contracts. Most of these reported price negotiations during the contract, fixed prices or fixed price and quantities, and most did not index price to raw material costs. Two U.S. producers reported characteristics of annual contracts⁶ and long-term contracts.⁷ One importer reported contract provisions of its short-term contracts⁸ and its long-term contracts.⁹

Sales terms and discounts

U.S. producers and importers typically quote prices on a delivered basis. Most producers (7 of 12 responding) and importers (4 of 6) reported no discount policy. Five producers

⁴ Conference transcript, pp. 112-113 (Pyland).

⁵ Respondent OCTAL's postconference brief, p. 31.

⁶ U.S. producers' annual contracts ***.

⁷ Both responding U.S. producers reported that long-term contracts ***.

⁸ The importer reported its short-term contracts ***.

⁹ The importer (***) reported its long-term contracts ***.

reported quantity discounts, two of these also offered total volume discounts. One importer offered both quantity and total volume discounts.

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 January 2016-March 2019.

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.

All products 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.

Seven U.S. producers and three importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.¹⁰ Pricing data reported by these firms in 2018 accounted for approximately 72.4 percent of U.S. producers' U.S. shipments of PET sheet¹¹ and *** percent of U.S. shipments of subject imports

¹⁰ 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.

¹¹ Pricing data represented 73.1 percent of U.S. producers' commercial shipments. The difference reflects the importance of internal consumption by U.S. producers.

from Korea,¹² *** percent of U.S. shipments of subject imports from Mexico, and *** percent of U.S. shipments of subject imports from Oman.

Price data for products 1-4 are presented in tables V-3 to V-6 and figures V-2 to V-5.

Table V-3

PET sheet: Weighted-average f.o.b. prices and quantities of domestic and imported product 1¹ and margins of underselling/(overselling), by quarters, January 2016-March 2019

Period	United States		Mexico			Oman		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)	Price (per pound)	Quantity (pounds)	Margin (percent)
2016:								
Jan.-Mar.	0.70	12,938,225	***	***	***	***	***	***
Apr.-June	0.68	20,428,388	***	***	***	***	***	***
July-Sept.	0.67	18,103,129	***	***	***	***	***	***
Oct.-Dec.	0.71	18,467,618	***	***	***	***	***	***
2017:								
Jan.-Mar.	0.71	20,313,207	***	***	***	***	***	***
Apr.-June	0.70	25,492,103	***	***	***	***	***	***
July-Sept.	0.70	22,488,919	***	***	***	***	***	***
Oct.-Dec.	0.75	20,292,526	***	***	***	***	***	***
2018:								
Jan.-Mar.	0.78	19,546,321	***	***	***	***	***	***
Apr.-June	0.82	21,440,101	***	***	***	***	***	***
July-Sept.	0.88	22,725,311	***	***	***	***	***	***
Oct.-Dec.	0.83	19,046,656	***	***	***	***	***	***
2019:								
Jan.-Mar.	0.73	17,549,061	***	***	***	***	***	***

¹ 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.

Note.-All products 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.

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

¹² Korean price data were reported only for product 4.

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 quarters, January 2016-March 2019

* * * * *

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 quarters, January 2016-March 2019

* * * * *

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 quarters, January 2016-March 2019

* * * * *

Figure V-2

PET sheet: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2016-March 2019

* * * * *

Figure V-3

PET sheet: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2016-March 2019

* * * * *

Figure V-4

PET sheet: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2016-March 2019

* * * * *

Figure V-5

PET sheet: Weighted-average prices and quantities of domestic and imported product 4, by quarters, January 2016-March 2019

* * * * *

Price trends

In general, prices increased during January 2016-March 2019. Table V-7 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from 0.8 percent to 7.7 percent during January 2016-March 2019. Import price increases ranged from 16.8 to 48.2 percent during January 2016-March 2019.

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

Item	Number of quarters	Low price (dollars per pound)	High price (dollars per pound)	Change in price over period ¹ (percent)
Product 1: United States	13	0.67	0.88	3.4
Korea	---	***	***	***
Mexico	7	***	***	***
Oman	13	***	***	***
Product 2: United States	13	0.72	0.89	1.9
Korea	---	***	***	***
Mexico	2	***	***	***
Oman	13	***	***	***
Product 3: United States	13	0.63	0.78	7.7
Korea	---	***	***	***
Mexico	---	***	***	***
Oman	13	***	***	***
Product 4: United States	13	0.76	0.96	0.8
Korea	11	***	***	***
Mexico	5	***	***	***
Oman	12	***	***	***

¹ Percentage change from the first quarter of 2016 to the first quarter of 2019.

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 11 instances (***) pounds); margins of underselling ranged from *** to *** percent. Prices for product imported from Mexico were below those for U.S.-produced product in 9 of 14 instances (***) pounds); margins of underselling ranged from *** to *** percent. In the remaining five instances (***) pounds), prices for product from Mexico were between *** and *** percent above prices for the domestic product.¹³ Prices for product imported from Oman were below those for U.S.-produced product in 46 of 51 instances (***) pounds); margins of underselling ranged from *** to *** percent. In the remaining five

¹³ The Mexican importer (***) reported that ***.

instances (** pounds), prices for product from Oman were between ** and ** percent above prices for the domestic product.

Table V-8a

PET sheet: Instances of underselling/overselling and the range and average of margins, by country, January 2016-March 2019

Source	Underselling				
	Number of quarters	Quantity ¹ (1,000 pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	17	**	**	**	**
Product 2	14	**	**	**	**
Product 3	10	**	**	**	**
Product 4	25	**	**	**	**
Total, underselling	66	**	11.4	0.1	28.3
Korea	11	**	**	**	**
Mexico	9	**	**	**	**
Oman	46	**	**	**	**
Total, underselling	66	**	11.4	0.1	28.3
Source	(Overselling)				
	Number of quarters	Quantity ¹ (1,000 pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	3	**	**	**	**
Product 2	1	**	**	**	**
Product 3	3	**	**	**	**
Product 4	3	**	**	**	**
Total, overselling	10	**	(26.3)	(0.1)	(72.8)
Korea	---	---	**	**	**
Mexico	5	**	**	**	**
Oman	5	**	**	**	**
Total, overselling	10	**	(26.3)	(0.1)	(72.8)

¹ 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.

Table V-8b

PET sheet: Instances of underselling/overselling and the range and average of margins, by product (excluding Mexico), January 2016-March 2019

Source	Underselling				
	Number of quarters	Quantity ¹ (1,000 pounds)	Average margin (percent)	Margin Range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Total, underselling	57	***	11.8	0.1	28.3
Source	(Overselling)				
	Number of quarters	Quantity (1,000 pounds)	Average margin (percent)	Margin Range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Total, overselling	5	***	(9.8)	(0.1)	(27.6)

¹ These data include only quarters in which there is a comparison between the U.S. and subject product.

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

LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of PET sheet report the purchasers where they experienced instances of lost sales or revenue due to competition from imports of PET sheet from Korea, Mexico, and Oman during January 2016-March 2019. Of the 17 responding U.S. producers, 12 reported that they had to either reduce prices or roll back announced price increases, and 11 firms reported that they had lost sales. Three U.S. producers submitted lost sales and lost revenue allegations. The three responding U.S. producers identified 28 firms where they lost sales (there were no lost revenue allegations). Some producers submitted multiple allegations. Of these 28 allegations, 21 were of lost sales to Oman, 3 were of lost sales to Oman and/or Korea, 3 were of lost sales to Korea, and one was of lost sales to Mexico. Most allegations were made for 2018 only. The remaining allegations were for multiple years, from 2016 to 2019.

Staff contacted 28 purchasers and received responses from 11 purchasers. Responding purchasers reported purchasing/imported 148.6 million pounds of PET sheet during January 2016-December 2018 (table V-9).

Table V-9
PET sheet: Purchasers' responses to purchasing patterns

Purchaser	Purchases and imports in 2016-18 (1,000 pounds)			Change in domestic share ² (pp, 2016-18)	Change in subject country share ² (pp, 2016-18)
	Domestic	Subject	All other ¹		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	115,608	103,354	***	(4.6)	(9.4)

¹ Includes all other sources and unknown sources.

² Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

During 2018, responding purchasers purchased *** percent from U.S. producers, and purchased or imported *** percent from Korea, *** percent from Mexico, *** percent from Oman, and *** percent from nonsubject countries. Of the responding purchasers, four reported decreasing purchases from domestic producers, four reported increasing purchases, and three reported fluctuating purchases from domestic producers.¹⁴ Purchasers explained increasing purchases were the result of increase in their sales of downstream product. Explanations for decreasing purchases of domestic product included problems with the largest U.S. PET sheet supplier that the producer was unable to remedy, slow lead times, U.S. suppliers were more expensive at high volumes, price, and purchaser increased its own production of PET sheet.

Of the 11 responding purchasers, 7 reported that, since 2016, they had purchased imported PET sheet from Oman instead of U.S.-produced product.¹⁵ Six of these purchasers reported that Oman import prices were lower than U.S.-produced product. Five of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced PET sheet, however, two of these purchasers responded both yes and no to the question. Two purchasers estimated the quantity of PET sheet from Oman purchased instead of domestic product; quantities ranged from *** pounds to ***

¹⁴ All purchasers knew the source of the PET sheet they purchased.

¹⁵ No purchasers reported purchasing imports from Korea instead of domestic PET sheet.

pounds (table V-10a). Purchasers identified quality, the superiority of D-PET (from Oman) over virgin PET (from U.S. producers) in processing, as non-price reasons for purchasing imported rather than U.S.-produced product. *** reported purchasing PET sheet from Mexico instead of U.S.-produced PET sheet and reported that prices for Mexican PET sheet were lower than prices for domestically produced PET sheet. *** reported, however, that *** was the primary reason for purchasing PET sheet from Mexico rather than from domestic producers.

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

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased subject imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity (1,000 pounds)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--8; No--3	Yes--7; No--1	Yes--5; No--3	***	

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

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

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 (pounds)
Korea	---	---	---	***
Mexico	1	1	---	***
Oman	7	6	5	***
Any subject source	---	---	---	***

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

Of three responding purchasers, one reported that U.S. producers had reduced prices in order to compete with lower-priced imports from Oman¹⁶ (table V-11; eight reported that they did not know).¹⁷ The reported estimated price reduction was 15 percent (this purchaser (***) provided no further explanation). Purchaser *** reported that *** did not know if U.S. producers had reduced prices to compete with lower-priced imports from Mexico.

Table V-11
PET sheet: Purchasers’ responses to U.S. producer price reductions

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

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

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. One purchaser (***) reported that it had “significant quality issues” with its main U.S. supplier. The purchaser placed this supplier on its conditional supplier list. In contrast, it reported OCTAL SAOC’s PET sheet imported from Oman is clearer, more consistent, and has ***. *** reported that U.S. producers compete with each other as well as with imports.

***.

¹⁶ Two purchasers reported that U.S. producers did not reduce their prices due to competition from PET sheet imported from Korea and Mexico.

¹⁷ One purchaser (***) reported that it did not know if the U.S. producer had reduced price due to competition with PET sheet from Oman. It also reported that it was not sure of the price reduction percentage. The price of PET sheet from Oman seems to be lower per pound than U.S. PET sheet. It has reported to U.S. and Canadian suppliers the prices it gets for product from “other sources like Oman.”

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

INSTRUCTION

Twenty one 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 2018, respectively.³ *** accounted for the largest total net sales quantity in 2018 (*** percent), followed by *** (*** percent and the remaining U.S. producers ranged from *** percent (***) to *** percent (***) of total net sales quantity in 2018.

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. In Appendix D, tables D-1 and D-2 present financial results specific to commercial sales (merchant market), and table D-3 presents company-specific financial data for total market operations.

Table VI-1

PET sheet: Results of operations of U.S. producers, total market, 2016-18, January to March 2018, and January to March 2019

* * * * *

Table VI-2

PET sheet: Changes in AUVs, total market, between fiscal years and between partial year periods

* * * * *

Net sales

The quantity and value of net sales for total market operations overall increased from 2016 to 2018 and were higher in January-March 2019 compared to January-March 2018.⁴ For the industry as a whole, the average net sales unit value decreased irregularly from \$*** per

¹ ***. U.S. producers' questionnaire responses of ***, question II-7. ***. U.S. producer's questionnaire responses of ***, question II-2. ***. Email from ***, August 15, 2019.

² ***'s fiscal year ends ***. *** used tax as its accounting basis. U.S. producers' questionnaire responses of ***, question III-2.

³ ***. Email from ***, August 17, 2019.

⁴ The quantity and value reported for commercial sales increased from 2016 to 2018 but were lower in January-March 2019 compared to January-March 2018. The quantity and value reported for internal consumption overall increased from 2016 to 2018 and were higher in January-March 2019 compared to January-March 2018.

pound in 2016 to \$*** per pound in 2018, and was higher in January-March 2019 at \$*** per pound compared to the same period in 2018 at \$*** per pound. As shown in table D-3 in Appendix D, the firms which reported throughout the three full years except *** reported an increasing net sales unit value from 2016 to 2018. Nine firms including *** reported higher net sales unit values between the comparable interim periods.^{5 6}

Cost of goods sold and gross profit or (loss)

The largest component of cost of goods sold (“COGS”) is raw materials, accounting for between *** percent (2016) and *** percent (2018) of total COGS. Raw materials consist of virgin and recycled PET chips/flakes, additives, coatings, and other raw materials. Table VI-1 shows that the industry’s per pound raw material costs increased by *** percent from 2016 to 2018, and were *** percent higher in the first quarter of 2019 compared to the first quarter of 2018.⁷ As seen in table D-3 in Appendix D, the firms which reported throughout the three full years except *** reported an increase in per pound raw material costs from 2016 to 2018. All firms except *** reported higher per pound raw material costs in January-March 2019 than in January-March 2018.

The second largest component of COGS is other factory costs, which accounted for between *** percent (2018) and *** percent (2016) of total COGS. Table VI-1 shows that the industry’s per pound other factory costs moved within a relatively narrow range throughout the reporting period.⁸

Lastly, direct labor is the smallest component of COGS, representing between *** percent (2018) and *** percent (2016) of total COGS. The industry’s per pound direct labor costs remained unchanged throughout the periods investigated.⁹

For the industry as a whole, total COGS, per pound COGS, and COGS as a ratio to net sales (“COGS ratio”) increased from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 largely due to increasing raw material costs.

Gross profit declined from \$*** in 2016 to \$*** in 2018, and was lower in January-March 2019 (\$***) than in January-March 2018 (\$***). The gross profit margin (gross profit as a ratio to net sales) also declined from 2016 to 2018 and was lower between the comparable

⁵ ***. Email from ***, August 17, 2019.

⁶ Average commercial sales unit value increased from \$*** per pound in 2016 to \$*** per pound in 2018, and was unchanged in January-March 2019 at \$*** per pound compared to the same period in 2018. Average internal consumption unit value declined from \$*** per pound in 2016 to \$*** per pound in 2018, and was higher at \$*** per pound compared to the same period in 2018 at \$*** per pound.

⁷ For merchant market operations, per pound raw material costs increased from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

⁸ For merchant market operations, per pound other factory costs declined from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

⁹ For merchant market operations, per pound direct labor costs remained unchanged from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

interim periods. Tables VI-1 and VI-2 show that for the industry as a whole, the decline in per pound net sales value with the increase in per pound COGS led to a decline in the gross profit margin from 2016 to 2018.¹⁰ While both per pound net sales and COGS were higher in interim 2019 than in interim 2018, per pound COGS increased more, and led to a lower gross profit margin between the comparable interim periods.¹¹

Selling, general, and administrative expenses and operating income

Total selling, general, and administrative (“SG&A”) expenses and SG&A expenses as a ratio to net sales overall increased from 2016 to 2018. The industry’s SG&A expense ratio as well as total SG&A expenses were higher between the comparable interim periods.¹²

On an overall basis and similar to the trend in gross profit, operating income declined from \$*** in 2016 to \$*** in 2018, and was lower in January-March 2019 (\$***) than in January-March 2018 (\$***). The operating income margin (operating income as a ratio to net sales) also declined from 2016 to 2018 and was lower between the comparable interim periods.¹³

All other expenses and net income or (loss)

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. Interest expense and other expenses were two major cost categories for the reporting firms. Interest expense and other expenses increased from 2016 to 2018. Interest expense was higher while other expenses were lower in January-March 2019 than in January-March 2018.

On an overall basis and similar to the trend in operating income, net income declined from \$*** in 2016 to \$*** in 2018, and was lower in January-March 2019 (\$***) than in January-March 2018 (\$***). The net income margin (net income as a ratio to net sales) also declined from 2016 to 2018 and was lower between the comparable interim periods.¹⁴

¹⁰ Declines in per pound internal consumption value resulted in declining per pound net sales value since internal consumption represented the majority of the total net sales.

¹¹ For merchant market operations, gross profit irregularly increased from 2016 to 2018 while gross profit margin irregularly declined. The industry reported higher gross loss and gross loss margin in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

¹² For merchant market operations, SG&A expense ratio declined while SG&A expenses moved within a relatively narrow range from 2016 to 2018. SG&A expense ratio as well as SG&A expenses were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

¹³ For merchant market operations, operating loss and operating loss margin irregularly decreased from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

¹⁴ For merchant market operations, net loss and net loss margin overall increased from 2016 to 2018 and were higher in January-March 2019 than in January-March 2018 (table D-1 in Appendix D).

Variance analysis

A variance analysis is most useful for products that do not have substantial changes in the product mix over the reporting period. The methodology is most sensitive at the plant or firm level, rather than the aggregated industry level. Because of the variation in unit values between firms, not all firms reporting complete data, and possible product mix differences, a variance analysis is not presented.

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-3 presents the responding firms' aggregate data on capital expenditures, research and development ("R&D") expenses. Capital expenditures and R&D expenses increased from 2016 to 2018 and were lower in January-March 2019 than in January-March 2018. Twelve firms reported capital expenditures and four 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 2016 to March 2019, respectively. The majority of reported R&D expenses reflect the data of *** which represented *** percent of total R&D expenses from January 2016 to March 2019.

Table VI-3
PET sheet: Capital expenditures and R&D expenses for U.S. producers, 2016-18, January to March 2018, and January to March 2019

* * * * *

ASSETS AND RETURN ON ASSETS

Table VI-4 presents data on the U.S. producers' total assets and their operating return on assets ("ROA").¹⁵ While total assets increased from 2016 to 2018, the operating ROA decreased notably.¹⁶

Table VI-4
PET sheet: Value of assets used in production, warehousing, and sales, and operating ROA for U.S. producers, 2016-18, January to March 2018, and January to March 2019

* * * * *

¹⁵ With respect to a company's overall operations, staff notes that a 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 allocation factors may have been required in order to report a total asset value for PET sheet.

¹⁶ ***.

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, Mexico, and Oman on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-5 presents U.S. producers' responses in a tabulated format and table VI-6 provides the narrative responses.

Table VI-5
PET sheet: Actual and anticipated negative effects of imports on investment and growth and development

* * * * *

Table VI-6
PET sheet: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

* * * * *

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 factors¹--

- (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 18 firms believed to produce and/or export PET sheet from Korea.³ A usable response to the Commission's questionnaire was received from one firm, Mijung Chemical Corp. (Mijung). Another firm, ***, certified that it is not a producer or exporter of PET sheet. Mijung's exports to the United States accounted for approximately *** percent of U.S. imports of PET sheet from Korea in 2018.⁴ According to the estimate requested of Mijung, the production of PET sheet in Korea reported in its questionnaire response accounts for approximately *** percent of overall production of PET sheet in Korea. Table VII-1 presents information on the PET sheet operations of Mijung in Korea.

Table VII-1
PET sheet: Summary data for producer Mijung in Korea, 2018

* * * * *

Changes in operations

Korean producer Mijung reported ***.

Operations on PET sheet

Table VII-2 presents information on the PET sheet operations of Korean producer Mijung. Capacity *** from 2016 to 2018, but is projected to decrease by *** percent, as Mijung ***. Production increased from 2016 to 2018, by *** percent, but was *** percent lower in interim 2019 than in interim 2018, and is projected to further decrease by *** percent from 2019 to 2020. Home market shipments consisted of ***, and increased by *** percent from 2016 to 2018. *** export shipments were to ***, and increased by *** percent from 2016 to 2018, but are projected to *** by 2020. Capacity utilization increased by *** percentage points from 2016 to 2018, and is projected to decrease by *** percentage points from 2019 to 2020. The share of home market shipments decreased from 2016 to 2018 by *** percentage points, while the share of export shipments, ***, increased by this same amount.

³ These firms were identified through a review of information submitted in the petition and contained in *** records.

⁴ The denominator for this calculation used imports from Korea reported in *** records under HTS code 3920.62.0090, after: (1) replacing quantities for firms that provided importers' questionnaire responses with their reported quantities, and (2) removing imports associated with firms that certified they had not imported any PET sheet into the U.S. since January 1, 2016. Still, this estimate is likely understated, as staff included in the denominator quantities reported under HTS code 3920.62.0090 for firms that were nonresponsive, which may include out of scope product.

Table VII-2
PET sheet: Data for Korean producer Mijung, 2016-18, January to March 2018, and January to March 2019 and projection calendar years 2019 and 2020

* * * * *

Alternative products

Korean producer Mijung *** production of other products using the same equipment and machinery used to produce PET sheet.

Exports

According to Global Trade Atlas (GTA), the leading export markets for PET sheet, film, and strip from Korea are China, Japan, and the United States (table VII-3). During 2018, the United States was the third largest export market for PET sheet, film, and strip from Korea, accounting for 13.7 percent. The largest export market in 2018 for PET sheet, film, and strip from Korea was China, accounting for 25.5 percent, followed by Japan, which accounted for 21.5 percent.

Table VII-3:
PET sheet, film, and strip: Exports from Korea, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 pounds)		
United States	46,486	60,763	66,946
China	96,697	93,029	124,780
Japan	107,335	116,822	105,207
Vietnam	16,843	23,714	33,611
Philippines	9,002	18,426	27,557
Germany	23,402	26,471	25,165
Taiwan	13,323	14,909	21,516
Italy	11,002	14,857	14,729
Hong Kong	12,491	10,724	8,796
All other destination markets	59,434	61,344	60,810
Total exports	396,015	441,058	489,116
	Value (1,000 dollars)		
United States	60,003	72,943	75,092
China	247,189	259,947	343,347
Japan	164,523	187,621	155,696
Vietnam	98,672	138,390	178,787
Philippines	17,432	35,699	58,977
Germany	35,248	41,021	44,352
Taiwan	23,984	24,864	38,207
Italy	21,293	28,387	31,053
Hong Kong	50,396	71,169	78,573
All other destination markets	102,631	106,042	108,134
Total exports	821,371	966,082	1,112,219

Table continued on next page.

Table VII-3 – Continued
PET sheet, film, and strip: Exports from Korea, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per pound)		
United States	1.29	1.20	1.12
China	2.56	2.79	2.75
Japan	1.53	1.61	1.48
Vietnam	5.86	5.84	5.32
Philippines	1.94	1.94	2.14
Germany	1.51	1.55	1.76
Taiwan	1.80	1.67	1.78
Italy	1.94	1.91	2.11
Hong Kong	4.03	6.64	8.93
All other destination markets	1.73	1.73	1.78
Total exports	2.07	2.19	2.27
	Share of quantity (percent)		
United States	11.7	13.8	13.7
China	24.4	21.1	25.5
Japan	27.1	26.5	21.5
Vietnam	4.3	5.4	6.9
Philippines	2.3	4.2	5.6
Germany	5.9	6.0	5.1
Taiwan	3.4	3.4	4.4
Italy	2.8	3.4	3.0
Hong Kong	3.2	2.4	1.8
All other destination markets	15.0	13.9	12.4
Total exports	100.0	100.0	100.0

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 July 24, 2019.

THE INDUSTRY IN MEXICO

The Commission issued foreign producers' or exporters' questionnaires to 13 firms believed to produce and/or export PET sheet from Mexico.⁵ Usable responses to the Commission's questionnaire were received from three firms: Inter Plas Industries, S.A. de C.V. (Inter Plas), Evertis de Mexico, S.A. de C.V. (Evertis), and Plazteca S.A. de C.V. (Plazteca).⁶ These firms' exports to the United States accounted for approximately *** percent of U.S. imports of PET sheet from Mexico in 2018.⁷ According to estimates requested of the responding Mexican producers, the production of PET sheet in Mexico reported in questionnaires accounts for approximately *** percent of overall production of PET sheet in Mexico. Table VII-4 presents information on the PET sheet operations of the responding producers and exporters in Mexico.

Table VII-4
PET sheet: Summary data for producers in Mexico, 2018

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)
Inter Plas	***	***	***	***	***	***
Evertis	***	***	***	***	***	***
Plazteca	***	***	***	***	***	***
Total	41,321	100.0	5,499	100.0	***	***

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

Changes in operations

*** reported that it revises labor agreements ***.

⁵ These firms were identified through a review of information submitted in the petition and contained in *** records.

⁶ Two firms, ***, responded that they would not be submitting a foreign producer questionnaire response because they do not export PET sheet to the U.S. One firm, ***, certified that it is not a PET sheet exporter or producer.

⁷ The denominator for this calculation used imports from Mexico reported in *** records under HTS code 3920.62.0090, after: (1) replacing quantities for firms that provided importers' questionnaire responses with their reported quantities, and (2) removing imports associated with firms that certified they had not imported any PET sheet into the U.S. since January 1, 2016. Still, this estimate is likely understated, as staff included in the denominator quantities reported under HTS code 3920.62.0090 for firms that were nonresponsive, which may include out of scope product.

Operations on PET sheet

Table VII-5 presents information on the PET sheet operations of the responding producers and exporters in Mexico. Capacity remained unchanged from 2016 and 2018, and is projected to remain unchanged through 2020. *** Mexican producers reported production increases from 2016 to 2018, resulting in an overall increase of 16.1 percent, and overall production was 14.9 percent higher in interim 2019 than in interim 2018. Production is projected to increase by 6.2 percent from 2019 to 2020. Home market shipments increased from 2016 to 2018 by 6.0 percent, were 32.2 percent higher in interim 2019 than in interim 2018, and are projected to increase by 6.0 percent from 2019 to 2020. The *** of PET sheet exports from Mexico go to the ***. Export shipments to the United States increased by 51.6 percent from 2016 to 2018, but were 45.4 percent lower in interim 2019 than in interim 2018. Export shipments to the United States are projected to increase by 1.1 percent from 2019 to 2020. Capacity utilization increased by 10.3 percentage points from 2016 to 2018, and is projected to increase from 78.8 percent in 2019 to 83.7 percent in 2020, or by 4.9 percentage points. Home market shipments accounted for *** to *** percent of total shipments from 2016 to 2018, while export shipments to the U.S. accounted for between *** percent of total shipments from 2016 to 2018.

Table VII-5

PET sheet: Data on industry in Mexico, 2016-18, January to March 2018, and January to March 2019 and projection calendar years 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to March		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (1,000 pounds)						
Capacity	55,755	55,755	55,755	14,280	14,280	55,755	55,755
Production	35,590	40,048	41,321	9,448	10,852	43,939	46,678
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	32,499	36,590	34,465	7,703	10,187	40,548	42,993
Export shipments to:							
United States	3,626	3,769	5,499	1,340	732	4,177	4,221
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	63.8	71.8	74.1	66.2	76.0	78.8	83.7
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	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

Alternative products

As shown in table VII-6, one responding Mexican firm reported producing other products on the same equipment and machinery used to produce PET sheet. *** reported that it produces ***.

Table VII-6
PET sheet: Overall capacity and production on the same equipment as in-scope production by producers in Mexico, 2016-18, January to March 2018, and January to March 2019

* * * * *

Exports

According to GTA, the leading export markets for PET sheet, film, and strip from Mexico are the United States, Poland, and Colombia (table VII-7). During 2018, the United States was the top export market for PET sheet, film, and strip from Mexico, accounting for 83.5 percent, followed by Poland, accounting for 4.6 percent.

Table VII-7:
PET sheet, film, and strip: Exports from Mexico, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 pounds)		
United States	55,129	52,734	87,010
Poland	4,794	2,388	4,816
Colombia	2,818	1,866	4,112
Argentina	2,404	2,416	2,581
El Salvador	1,754	1,762	1,561
India	937	462	549
Chile	107	102	484
Peru	27	41	452
Guatemala	367	47	381
All other destination markets	2,838	11,998	2,215
Total exports	71,175	73,814	104,161
	Value (1,000 dollars)		
United States	53,090	50,827	85,612
Poland	1,661	4,148	7,568
Colombia	3,105	2,281	4,197
Argentina	2,232	2,387	2,669
El Salvador	1,741	1,798	1,598
India	243	116	204
Chile	167	210	812
Peru	162	31	431
Guatemala	506	60	261
All other destination markets	5,077	1,987	3,179
Total exports	67,984	63,845	106,530

Table continued on next page.

Table VII-7 – Continued
PET sheet, film, and strip: Exports from Mexico, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per pound)		
United States	0.96	0.96	0.98
Poland	0.35	1.74	1.57
Colombia	1.10	1.22	1.02
Argentina	0.93	0.99	1.03
El Salvador	0.99	1.02	1.02
India	0.26	0.25	0.37
Chile	1.56	2.07	1.68
Peru	6.04	0.76	0.95
Guatemala	1.38	1.28	0.69
All other destination markets	1.79	0.17	1.44
Total exports	0.96	0.86	1.02
	Share of quantity (percent)		
United States	77.5	71.4	83.5
Poland	6.7	3.2	4.6
Colombia	4.0	2.5	3.9
Argentina	3.4	3.3	2.5
El Salvador	2.5	2.4	1.5
India	1.3	0.6	0.5
Chile	0.2	0.1	0.5
Peru	0.0	0.1	0.4
Guatemala	0.5	0.1	0.4
All other destination markets	4.0	16.3	2.1
Total exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 3920.62 as reported by INEGI in the Global Trade Atlas database, accessed July 24, 2019.

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 2018. According to estimates requested of OCTAL SAOC, the production of PET sheet in Oman reported in questionnaires accounts for approximately *** percent of overall production of PET sheet in Oman. Table VII-8 presents information on the PET sheet operations of OCTAL SAOC.

Table VII-8
PET sheet: Summary data for Oman producer, 2018

* * * * *

Changes in operations

As presented in table VII-9, OCTAL SAOC reported *** since January 1, 2016.

Table VII-9
PET sheet: Oman producer's reported changes in operations, since January 1, 2016

* * * * *

Operations on PET sheet

Table VII-10 presents information on the PET sheet operations of OCTAL SAOC. Capacity increased slightly from 2016 to 2018, but is projected to increase by *** percent from 2019 to 2020. Production increased from 2016 to 2017, by *** percent, and then decreased by *** percent from 2017 to 2018. This decrease in 2018 production coincided with cyclone Mikunu. However, production for 2019 is projected to surpass 2018 quantities, and production is projected to further increase by *** percent from 2019 to 2020. End-of-period inventories increased by *** percent from 2017 to 2018. OCTAL SAOC reported that increases in end-of-period inventories ***.⁹ Total home market shipments decreased from 2016 to 2018 by *** percent, and were *** percent lower in interim 2019 than in interim 2018. Export shipments to the U.S. decreased by *** percent from 2016 to 2018, and were *** percent higher in interim 2019 than in interim 2018, and are projected to increase by *** percent from 2019 to 2020. Capacity utilization was at *** percent in 2018, but is projected to be *** percent in both 2019 and 2020. Export shipments to all markets as a share of total shipments ranged from ***

⁸ This firm was identified through a review of information submitted in the petition and contained in *** records.

⁹ OCTAL's postconference brief, p. 41.

percent from 2016 to 2018. Export shipments to the U.S. as a share of total shipments increased by *** percentage points from 2016 to 2018, and is projected to increase by *** percentage points from 2019 to 2020.

Table VII-10

PET sheet: Data for Oman producer, 2016-18, January to March 2018, and January to March 2019 and projection calendar years 2019 and 2020

* * * * *

Alternative products

As shown in table VII-11, OCTAL SAOC produced other products (***) on the same equipment and machinery used to produce PET sheet.

Table VII-11

PET sheet: Oman producer's overall capacity and production on the same equipment as subject production, 2016-18, January to March 2018, and January to March 2019

* * * * *

Exports

GTA data were not reliable, and thus are not presented here. According to OCTAL SAOC's questionnaire response, *** was the top export market for PET sheet from Oman, as it accounted for between *** percent of total exports from 2016 to 2018. OCTAL SAOC reported in its questionnaire response that other principal export markets include ***.

SUBJECT COUNTRIES COMBINED

Table VII-12 presents summary data on PET sheet operations of the reporting subject producers in the subject countries. Capacity across all subject countries remained constant from 2016 through 2018, decreasing by *** percent, but was *** percent higher in interim 2019 than in interim 2018, and is projected to increase by *** percent from 2019 to 2020. Production quantities across subject countries increased by *** percent from 2016 to 2018, was *** percent higher in interim 2019 than in interim 2018, and is projected to increase by *** percent from 2019 to 2020. Capacity utilization increased by *** percentage points from 2016 to 2018, and is projected to increase by *** percentage points from 2018 (***) to 2019 (***) percent). Exports to the United States as a share of total shipments increased by *** percentage point from 2016 to 2018, and is projected to increase by *** percentage points from 2018 to 2020 (from ***). Table VII-13 presents summary data on PET sheet operations from all subject data, minus Mexico.

Table VII-12

PET sheet: Data on industry in subject countries, 2016-18, January to March 2018, and January to March 2019 and projection calendar years 2019 and 2020

* * * * *

Table VII-13

PET sheet: Data on industry in subject countries less Mexico, 2016-18, January to March 2018, and January to March 2019 and projection calendar years 2019 and 2020

* * * * *

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-14 presents data on U.S. importers' reported inventories of PET sheet. End-of-period inventories increased from 2016 to 2018 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 2016 to 2018 for nonsubject sources, by *** percent, and were *** percent lower in interim 2019 than in interim 2018.

Table VII-14
PET sheet: U.S. importers' end-of-period inventories of imports by source, 2016-18, January to March 2018, and January to March 2019

Item	Calendar year			January to March	
	2016	2017	2018	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 Mexico: 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 nonsubject sources: Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from all sources: Inventories	9,489	7,807	12,937	9,891	27,661
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 after March 31, 2019. Seven of the 12 responding importers indicated they had arranged such imports. These data are presented in table VII-15.

Table VII-15
PET sheet: Arranged imports, April 2019 through March 2020

* * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

There are no known trade remedy actions on PET sheet from 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 ***.¹⁰ 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, Korea, Taiwan, the Middle East, and Mexico were the *** in the world, which together accounted for more than *** of global exports.¹¹

Table VII-16 presents Taiwan exports of PET sheet, film, and strip, by destination market from 2016 to 2018. For PET resin, the market is considered mature, and consumption grew at *** percent per year. In the downstream category of "other PET" which includes sheet, film, fiber and strap, Taiwanese consumption grew *** from 2016 to 2017 and is expected to grow *** percent from 2017—22.¹² In 2016, Taiwan exported \$25 million in PET plate, sheet, film, foil, and strip to the U.S., and in 2017, \$27 million, and in 2018, \$27 million.¹³

¹⁰ 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.

¹¹ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 39.

¹² *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 123.

¹³ Global Trade Atlas, HS 3920.62, retrieved August 21, 2019.

Table VII-16
PET sheet, film, and strip: Taiwan exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 pounds)		
United States	27,167	30,227	24,432
China	110,098	115,329	120,431
Japan	48,034	50,471	57,634
Australia	9,313	12,117	16,568
India	8,080	8,496	9,820
Vietnam	5,717	6,046	9,183
Malaysia	4,586	5,980	8,089
Mexico	3,447	4,648	6,798
Germany	3,285	2,960	5,134
All other destination markets	29,432	29,919	---
Total exports	249,159	266,194	291,530
	Value (1,000 dollars)		
United States	24,580	27,100	26,556
China	270,443	228,850	247,238
Japan	54,326	55,879	60,897
Australia	6,096	8,131	11,404
India	8,078	9,992	12,286
Vietnam	3,948	5,100	9,226
Malaysia	4,527	6,055	10,158
Mexico	4,217	6,089	8,254
Germany	3,489	3,605	5,400
All other destination markets	52,384	61,183	---
Total exports	432,088	411,984	467,472

Table continued on next page.

Table VII-16- Continued
PET sheet, film, and strip: Taiwan exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per pound)		
United States	0.90	0.90	1.09
China	2.46	1.98	2.05
Japan	1.13	1.11	1.06
Australia	0.65	0.67	0.69
India	1.00	1.18	1.25
Vietnam	0.69	0.84	1.00
Malaysia	0.99	1.01	1.26
Mexico	1.22	1.31	1.21
Germany	1.06	1.22	1.05
All other destination markets	1.78	2.04	---
Total exports	1.73	1.55	1.60
	Share of quantity (percent)		
United States	10.9	11.4	8.4
China	44.2	43.3	41.3
Japan	19.3	19.0	19.8
Australia	3.7	4.6	5.7
India	3.2	3.2	3.4
Vietnam	2.3	2.3	3.1
Malaysia	1.8	2.2	2.8
Mexico	1.4	1.7	2.3
Germany	1.3	1.1	1.8
All other destination markets	11.8	11.2	---
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.

Source: Official exports statistics under HS subheading 3920.62 as reported by Taiwan Directorate General of Customs in the Global Trade Atlas database, accessed August 27, 2019.

Table VII-17 presents Japan exports of PET sheet, film, and strip, by destination market from 2016 to 2018. In 2016, Japan exported \$36 million in PET plate, sheet, film, foil, and strip to the U.S., and in 2017, \$30 million, and in 2018, \$30 million.¹⁴ In the category of “other PET” which includes sheet, film, fiber and strap, Japanese consumption is expected to grow *** percent from 2017—22.¹⁵

Table VII-17
PET sheet, film, and strip: Japan exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 pounds)		
United States	5,383	3,735	4,368
China	83,333	121,257	142,465
Korea	58,682	54,024	61,108
Taiwan	40,319	34,441	37,949
Hong Kong	38,048	23,094	18,630
Malaysia	6,199	7,102	10,158
Thailand	4,330	6,257	8,183
Italy	2,992	5,581	7,086
Singapore	2,136	2,430	3,200
All other destination markets	15,188	19,295	---
Total exports	256,610	277,217	308,839
	Value (1,000 dollars)		
United States	36,286	30,487	29,939
China	341,803	399,613	405,271
Korea	291,371	278,039	292,635
Taiwan	160,062	131,330	129,259
Hong Kong	166,476	105,322	107,248
Malaysia	24,212	25,909	32,696
Thailand	21,064	21,640	23,087
Italy	11,960	20,928	29,788
Singapore	10,303	11,745	15,547
All other destination markets	87,072	92,935	---
Total exports	1,150,611	1,117,947	1,147,638

Table continued on next page.

¹⁴ Global Trade Atlas, HS 3920.62, retrieved August 21, 2019.

¹⁵ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 114.

Table VII-17 – Continued

PET sheet, film, and strip: Japan exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per pound)		
United States	6.74	8.16	6.85
China	4.10	3.30	2.84
Korea	4.97	5.15	4.79
Taiwan	3.97	3.81	3.41
Hong Kong	4.38	4.56	5.76
Malaysia	3.91	3.65	3.22
Thailand	4.86	3.46	2.82
Italy	4.00	3.75	4.20
Singapore	4.82	4.83	4.86
All other destination markets	5.73	4.82	---
Total exports	4.48	4.03	3.72
	Share of quantity (percent)		
United States	2.1	1.3	1.4
China	32.5	43.7	46.1
Korea	22.9	19.5	19.8
Taiwan	15.7	12.4	12.3
Hong Kong	14.8	8.3	6.0
Malaysia	2.4	2.6	3.3
Thailand	1.7	2.3	2.6
Italy	1.2	2.0	2.3
Singapore	0.8	0.9	1.0
All other destination markets	5.9	7.0	---
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.

Source: Official exports statistics under HS subheading 3920.62 as reported by Japan Ministry of Finance in the Global Trade Atlas database, accessed August 27, 2019.

Table VII-18 presents Canada exports of PET sheet, film, and strip, by destination market from 2016 to 2018. In the category of “other PET” which includes sheet, film, fiber and strap, Canadian consumption is expected to grow *** percent from 2017–22.¹⁶ In 2016, Canada exported \$58 million in PET plate, sheet, film, foil, and strip to the U.S., and in 2017, \$64 million, and in 2018, \$75 million.¹⁷

Table VII-18
PET sheet, film, and strip: Canada exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 pounds)		
United States	55,566	58,175	64,913
Romania	---	---	269
United Kingdom	154	360	148
China	26	21	136
Togo	5	22	94
Ireland	122	---	58
Mexico	10	10	34
Philippines	---	---	31
Germany	5	32	23
All other destination markets	129	205	---
Total exports	56,016	58,825	65,766
	Value (1,000 dollars)		
United States	58,438	64,198	75,261
Romania	---	---	928
United Kingdom	300	1,481	338
China	128	127	275
Togo	25	123	527
Ireland	207	---	100
Mexico	53	55	107
Philippines	---	---	171
Germany	18	143	79
All other destination markets	596	1,245	---
Total exports	59,766	67,372	78,082

Table continued on next page.

¹⁶ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 55.

¹⁷ Global Trade Atlas, HS 3920.62, retrieved August 21, 2019.

Table VII-18 – Continued
PET sheet, film, and strip: Canada exports by destination market, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per pound)		
United States	1.05	1.10	1.16
Romania	---	---	3.45
United Kingdom	1.94	4.11	2.28
China	4.99	6.15	2.03
Togo	5.47	5.50	5.58
Ireland	1.70	---	1.71
Mexico	5.21	5.67	3.13
Philippines	---	---	5.56
Germany	3.91	4.51	3.39
All other destination markets	4.62	6.06	---
Total exports	1.07	1.15	1.19
	Share of quantity (percent)		
United States	99.2	98.9	98.7
Romania	---	---	0.4
United Kingdom	0.3	0.6	0.2
China	0.0	0.0	0.2
Togo	0.0	0.0	0.1
Ireland	0.2	---	0.1
Mexico	0.0	0.0	0.1
Philippines	---	---	0.0
Germany	0.0	0.1	0.0
All other destination markets	0.2	0.3	---
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.

Source: Official exports statistics under HS subheading 3920.62 as reported by Statistics Canada in the Global Trade Atlas database, accessed August 27, 2019.

Table VII-19 presents global capacity, production, trade, and consumption data on a regional basis for PET resin. Table VII-20 shows world consumption by end use for 2017 and forecasted consumption for 2022. The largest end use globally is beverages, which accounts for *** percent, other PET (including PET sheet and film, strapping and industrial fiber) *** percent, food packaging *** percent, and cosmetics *** percent, and pharmaceuticals *** percent of end use in 2017.¹⁸ PET resin consumption is expected to increase by *** percent globally from 2017—22, and the percentages of consumption by end use is predicted to remain largely the same.¹⁹ 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.²⁰

Table VII-19

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

* * * * *

Table VII-20

PET resin: World Consumption by end use—2017 and forecast 2022

* * * * *

¹⁸ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 6-7.

¹⁹ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, March 2018, p. 7.

²⁰Garside, M., “Distribution of polyethylene terephthalate (PET) consumption worldwide in 2016, by end-use,” Statistica, July 2, 2018.

Table VII-21 presents export data for the larger PET sheet producing countries for 2016–18. The two largest non-subject exporters of PET plates, sheets, film, foil, and strip globally in 2018 were China (\$1.21 billion, 14.8 percent share) and Japan (\$1.15 billion, 14.0 percent share).

Table VII-21:
PET sheet, film and strip: Global exports by exporter, 2016-18

Exporter	Calendar year		
	2016	2017	2018
	Value (1,000 dollars)		
United States	505,476	548,785	561,677
Korea	821,371	966,082	1,112,219
Mexico	67,984	63,845	106,530
Oman	355,806	321,322	319,634
China	936,093	1,193,356	1,211,400
Japan	1,150,611	1,117,947	1,147,638
Germany	492,343	539,732	601,736
Taiwan	432,088	411,984	467,472
India	186,943	257,754	353,852
Thailand	155,795	182,684	234,829
Belgium	137,264	169,252	194,996
Hong Kong	219,045	179,117	192,376
Italy	162,110	169,569	192,064
United Kingdom	141,971	182,776	188,531
All other exporters	1,185,053	1,272,255	1,321,931
Total	6,949,952	7,576,461	8,206,885
	Share of value (percent)		
United States	7.3	7.2	6.8
Korea	11.8	12.8	13.6
Mexico	1.0	0.8	1.3
Oman	5.1	4.2	3.9
China	13.5	15.8	14.8
Japan	16.6	14.8	14.0
Germany	7.1	7.1	7.3
Taiwan	6.2	5.4	5.7
India	2.7	3.4	4.3
Thailand	2.2	2.4	2.9
Belgium	2.0	2.2	2.4
Hong Kong	3.2	2.4	2.3
Italy	2.3	2.2	2.3
United Kingdom	2.0	2.4	2.3
All other exporters	17.1	16.8	16.1
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 exports statistics under HS subheading 3920.62 reported by various national statistical authorities in the Global Trade Atlas database, accessed July 24, 2019 and official global imports statistics from Oman under HS subheading 3920.62 as reported by UN comtrade in the Global Trade Atlas database, accessed August 21, 2019.

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	<i>Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, Oman; Institution of Anti-Dumping Investigations and Scheduling of Preliminary Phase Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2019-07-15/pdf/2019-14915.pdf
84 FR 38296, August 6, 2019	<i>Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman; Revised Schedule for the Subject Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2019-08-06/pdf/2019-16698.pdf
84 FR 39801, August 12, 2019	<i>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</i>	https://www.govinfo.gov/content/pkg/FR-2019-08-12/pdf/2019-17098.pdf
84 FR 44854, August 27, 2019	<i>Polyethylene Terephthalate Sheet From the Republic of Korea, Mexico, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations</i>	https://www.govinfo.gov/content/pkg/FR-2019-08-27/pdf/2019-18370.pdf
84 FR 49116, September 18, 2019	<i>Polyethylene Terephthalate Sheet From Korea, Mexico, and Oman: Preliminary Determinations</i>	https://www.federalregister.gov/documents/search?conditions%5Bterm%5D=international+trade+commission&order=newest

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission’s preliminary conference:

- Subject:** Polyethylene Terephthalate (PET) Sheet from Korea, Mexico, and Oman
- Inv. Nos.:** 731-TA-1455-1457 (Preliminary)
- Date and Time:** July 30, 2019 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in Court Room A (Room 100), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye & 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 & Warren LLP
Washington, DC
on behalf of

Advanced Extrusion, Inc.
Ex-Tech Plastics, Inc.
Multi-Plastics Extrusions, Inc.

John Thibado, President and Chief Executive Officer, Advanced Extrusion Inc.

Brian Grayczyk, President, Ex-Tech Plastics, Inc.

John Parsio, Jr., President, Multi-Plastics Extrusions, Inc.

Douglas DeBode, General Manager, Multi-Plastics Extrusions, Inc.

Gina E. Beck, Economic Consultant, Georgetown Economic Services LLC

Brad Hudgens, Economic Consultant, 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 FSZ and OCTAL Inc.
(collectively "OCTAL")

William J. (Joe) Barenberg, Jr., Chief Operating Officer, OCTAL

Chad Pyland, North American Sales Manager, OCTAL

Daniel L. Porter)
James P. Durling) – OF COUNSEL
Gina Colarusso)

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
In Opposition to Imposition (**James P. Durling**, Curtis, Mallet-Prevost, Colt & Mosle LLP)

-END-

APPENDIX C
SUMMARY DATA

Table C-1: PET sheet: Summary data concerning the total U.S. market	C-3
Table C-2: PET sheet: Summary data concerning the merchant U.S. market	C-5
Table C-3: PET sheet: Summary data for total U.S. market, with related party exclusion... ..	C-7

Total market: All producers

Table C-1

PET sheet: Total market summary data including all producers, 2016-18, January to March 2018, and January to March 2019

(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		2018	January to March		Calendar year			Jan-Mar 2018-19
	2016	2017		2018	2019	2016-18	2016-17	2017-18	
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports--									
Korea:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico:									
Quantity.....	3,626	3,769	5,499	1,340	732	▲51.6	▲3.9	▲45.9	▼(45.4)
Value.....	2,457	2,532	4,308	996	606	▲75.4	▲3.1	▲70.2	▼(39.1)
Unit value.....	\$0.68	\$0.67	\$0.78	\$0.74	\$0.83	▲15.6	▼(0.9)	▲16.6	▲11.4
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Oman:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources less Mexico:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Nonsubject sources plus Mexico:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
All import sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	9,489	7,807	12,937	9,891	27,661	▲36.3	▼(17.7)	▲65.7	▲179.7

Table continued on next page.

Table C-1--Continued

PET sheet: Total market summary data including all producers, 2016-18, January to March 2018, and January to March 2019

(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			January to March		Calendar year			Jan-Mar
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers:									
Average capacity quantity.....	922,152	958,238	1,119,867	265,596	282,398	▲21.4	▲3.9	▲16.9	▲6.3
Production quantity.....	705,126	760,210	875,573	193,249	215,199	▲24.2	▲7.8	▲15.2	▲11.4
Capacity utilization (fn1).....	76.5	79.3	78.2	72.8	76.2	▲1.7	▲2.9	▼(1.1)	▲3.4
U.S. shipments:									
Quantity.....	699,956	753,402	875,698	195,382	212,814	▲25.1	▲7.6	▲16.2	▲8.9
Value.....	587,380	594,446	710,325	154,649	172,797	▲20.9	▲1.2	▲19.5	▲11.7
Unit value.....	\$0.84	\$0.79	\$0.81	\$0.79	\$0.81	▼(3.3)	▼(6.0)	▲2.8	▲2.6
Export shipments:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Ending inventory quantity.....	23,707	25,843	21,543	19,731	21,837	▼(9.1)	▲9.0	▼(16.6)	▲10.7
Inventories/total shipments (fn1).....	***	***	***	***	***	▼***	▲***	▼***	▲***
Production workers.....	1,409	1,453	1,467	1,363	1,406	▲4.1	▲3.1	▲1.0	▲3.2
Hours worked (1,000s).....	3,015	3,047	4,211	827	722	▲39.7	▲1.1	▲38.2	▼(12.6)
Wages paid (\$1,000).....	55,633	57,670	63,464	18,451	18,473	▲14.1	▲3.7	▲10.0	▲0.1
Hourly wages (dollars per hour).....	\$18.45	\$18.93	\$15.07	\$22.32	\$25.58	▼(18.3)	▲2.6	▼(20.4)	▲14.6
Productivity (pounds per hour).....	233.9	249.5	207.9	233.8	298.0	▼(11.1)	▲6.7	▼(16.7)	▲27.5
Unit labor costs.....	\$0.08	\$0.08	\$0.07	\$0.10	\$0.09	▼(8.1)	▼(3.8)	▼(4.5)	▼(10.1)
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.....	***	***	***	***	***	▲***	▲***	▲***	▼***
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" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "----". U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities.

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: Merchant market summary data including all producers, 2016-18, January to March 2018, and January to March 2019

(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			January to March		Calendar year			Jan-Mar
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Producers' share (fn1).....	***	***	***	***	***	▲***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Subject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1).....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports--									
Korea:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico:									
Quantity.....	3,626	3,769	5,499	1,340	732	▲51.6	▲3.9	▲45.9	▼(45.4)
Value.....	2,457	2,532	4,308	996	606	▲75.4	▲3.1	▲70.2	▼(39.1)
Unit value.....	\$0.68	\$0.67	\$0.78	\$0.74	\$0.83	▲15.6	▼(0.9)	▲16.6	▲11.4
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Oman:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources less Mexico:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Nonsubject sources plus Mexico:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
All import sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	9,489	7,807	12,937	9,891	27,661	▲36.3	▼(17.7)	▲65.7	▲179.7

Table continued on next page.

Table C-2--Continued

PET sheet: Merchant market summary data including all producers, 2016-18, January to March 2018, and January to March 2019

(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		2018	January to March		Calendar year			Jan-Mar
	2016	2017		2018	2018	2019	2016-18	2016-17	2017-18
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" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities.

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 exclusion

Table C-3

PET sheet: Total market summary data excluding one U.S. producers *, 2016-18, January to March 2018, and January to March 2019**

(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			January to March		Calendar year			Jan-Mar
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▼***	▼***
All producers.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▼***	▼***
All producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports--									
Korea:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico:									
Quantity.....	3,626	3,769	5,499	1,340	732	▲51.6	▲3.9	▲45.9	▼(45.4)
Value.....	2,457	2,532	4,308	996	606	▲75.4	▲3.1	▲70.2	▼(39.1)
Unit value.....	\$0.68	\$0.67	\$0.78	\$0.74	\$0.83	▲15.6	▼(0.9)	▲16.6	▲11.4
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Oman:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources less Mexico:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Nonsubject sources plus Mexico:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***

Table continued on next page.

Table C-3--Continued

PET sheet: Total market summary data excluding one U.S. producers ***, 2016-18, January to March 2018, and January to March 2019

(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		2018	January to March		Calendar year			Jan-Mar
	2016	2017		2018	2018	2019	2016-18	2016-17	2017-18
U.S. importers' U.S. shipments of imports--Continued.									
All import sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	9,489	7,807	12,937	9,891	27,661	▲36.3	▼(17.7)	▲65.7	▲179.7
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).....	***	***	***	***	***	▼***	▲***	▼***	▼***
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.....	***	***	***	***	***	▲***	▲***	▲***	▼***
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" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "----". U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities.

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: Merchant market summary data excluding one U.S. producer*, 2016-18, January to March 2018, and January to March 2019**

(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			January to March		Calendar year			Jan-Mar
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▼***
All producers.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▼***	▼***	▲***
Subject sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▼***	▲***	▼***	▲***
U.S. consumption value:									
Amount.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Producers' share (fn1):									
Included producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Excluded producers.....	***	***	***	***	***	▲***	▲***	▲***	▼***
All producers.....	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
Korea.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▼***
Oman.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Subject sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Subject sources less Mexico.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Nonsubject sources.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject sources plus Mexico.....	***	***	***	***	***	▲***	▼***	▲***	▲***
All import sources.....	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports--									
Korea:									
Quantity.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Mexico:									
Quantity.....	3,626	3,769	5,499	1,340	732	▲51.6	▲3.9	▲45.9	▼(45.4)
Value.....	2,457	2,532	4,308	996	606	▲75.4	▲3.1	▲70.2	▼(39.1)
Unit value.....	\$0.68	\$0.67	\$0.78	\$0.74	\$0.83	▲15.6	▼(0.9)	▲16.6	▲11.4
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Oman:									
Quantity.....	***	***	***	***	***	▼***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources less Mexico:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Nonsubject:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***
Nonsubject sources plus Mexico:									
Quantity.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▼***	▲***	▲***
Ending inventory quantity.....	***	***	***	***	***	▼***	▲***	▼***	▼***

Table continued on next page.

Table C-4--Continued

PET sheet: Merchant market summary data excluding one U.S. producer ***, 2016-18, January to March 2018, and January to March 2019

(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		2018	January to March		Calendar year			Jan-Mar
	2016	2017		2018	2018	2019	2016-18	2016-17	2017-18
U.S. importers' U.S. shipments of imports--Continued									
All import sources:									
Quantity.....	***	***	***	***	***	▲***	▲***	▼***	▲***
Value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit value.....	***	***	***	***	***	▲***	▲***	▲***	▲***
Ending inventory quantity.....	9,489	7,807	12,937	9,891	27,661	▲36.3	▼(17.7)	▲65.7	▲179.7
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" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "--". U.S. imports from Mexico are based on the quantity of Mexican producers' reported exports to the United States, with the value derived from the AUVs reported by U.S. importers from Mexico multiplied by foreign producers' quantities.

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

MERCHANT MARKET FINANCIAL DATA

Table D-1

PET sheet: Results of operations of U.S. producers, merchant market, 2016-18, January to March 2018, and January to March 2019

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Table D-2

PET sheet: Changes in AUVs, merchant market, between fiscal years and between partial year periods

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Table D-3

PET sheet: Select results of operations of U.S. producers, total market, by company, 2016-18, January to March 2018, and January to March 2019

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