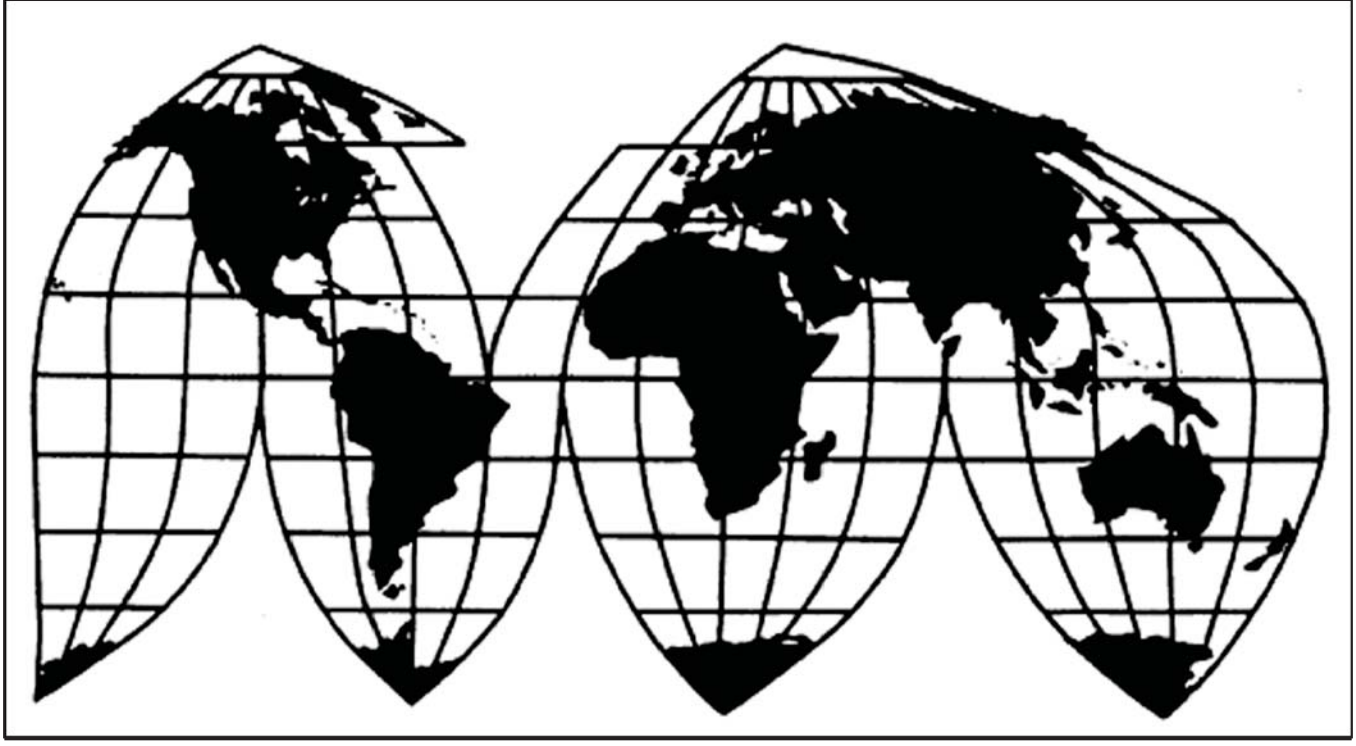
Polyethylene Terephthalate (PET) Resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan

Investigation Nos. 731-TA-1387-1391 (Preliminary)

Publication 4740 **November 2017**

U.S. International Trade Commission



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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 731-TA-1387-1391 (Preliminary)
Polyethylene Terephthalate (PET) Resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan

DETERMINATIONS

On the basis of the record[1] developed in these 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) resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan, provided for in subheading 3907.61.00 and 3907.69.00 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").

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 Department of Commerce ("Commerce") of an affirmative preliminary determination in the investigation under section 733(b) of the Act, or, if the preliminary determination is negative, upon notice of an affirmative final determination in that investigation under section 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of these investigations need not enter a separate appearance for the final phase of these 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 and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to these 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)).

BACKGROUND

On September 26, 2017, DAK Americas LLC, Charlotte, North Carolina; Indorama Ventures USA, Inc., Decatur, Alabama; M&G Polymer USA, LLC, Houston, Texas; and Nan Ya Plastics Corporation, America, Lake City, South Carolina filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured and threatened with material injury by reason of LTFV imports of polyethylene terephthalate (PET) resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan. Accordingly, effective September 26, 2017, the Commission, pursuant to section 733(a) of the Act (19 U.S.C. 1673b(a)), instituted antidumping duty investigation Nos. 731-TA-1387-1391 (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 October 2, 2017 (82 FR 45890). The conference was held in Washington, DC, on October 17, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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") resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan that are allegedly sold in the United States at less than fair value.

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping and countervailing 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.[1] 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."[2]

II. Background

DAK Americas LLC ("DAK"), Indorama Ventures USA, Inc. ("Indorama"), M&G Polymers USA, LLC ("M&G USA"), and Nan Ya Plastics Corporation, America ("Nan Ya") (collectively "Petitioners") filed the petitions in these investigations on September 26, 2017.[3] Each petitioner is a U.S. producer of PET resin. Petitioners appeared at the staff conference and submitted a postconference brief.

Several respondent entities (collectively "Respondents") actively participated in these investigations.[4] Graham Packaging Company ("Graham"), a U.S. purchaser of PET resin; Niagara

[1] 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, 2*0 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.

[2] *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).

[3] Indorama supports the petition with regards to imports from Brazil, Korea, Pakistan, and Taiwan but does not take a position on the petition with regards to imports from Indonesia. ***. Confidential Report ("CR") at III-2, Public Report ("PR") at III-1.

[4] The following additional respondent entities filed entries of appearance in these investigations but did not appear at the conference or file postconference briefs: three U.S. importers of PET resin (Amcor Rigid Plastics USA, LLC, iResin LLC, and Sun Fiber, LLC); one purchaser of PET resin (Pactiv LLC); one producer of subject merchandise from Indonesia (PT. Harvestindo International); two producers of subject merchandise from Pakistan (G-PAC Corporation USA and Novatex Limited); and the government of Brazil.

Bottling, LLC ("Niagara"),[5] a U.S. importer of PET resin; and the government of Indonesia appeared at the conference and each submitted a postconference brief. M&G Polimeros of Brazil, S.A. ("M&G Brazil") and Companhia Integrada Textil de Pernambuco ("CITEPE"), two producers and exporters of subject merchandise from Brazil; and Ravago America LLC ("Ravago"), a U.S. importer of PET resin, also each submitted a postconference brief. The International Bottled Water Association participated in these proceedings as a non-party and filed comments arguing against the imposition of antidumping duties.

U.S. industry data are based on questionnaire responses of four firms that accounted for all known U.S. production of PET resin during 2016. U.S. import data are based on questionnaire responses from 17 firms that represent *** percent of total subject imports, *** percent of U.S. imports from Brazil, *** percent of U.S. imports from Indonesia, *** percent of U.S. imports from Korea, *** percent of U.S. imports from Pakistan, and *** percent of U.S. imports from Taiwan in 2016. Import data are also supplemented by *** and official import statistics. Foreign industry data are based on usable questionnaire responses from two firms in Brazil, three firms in Indonesia, two firms in Korea, one firm in Pakistan, and one firm in Taiwan.[6]

III. Domestic Like Product

A. In General

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."[7] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[8] 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."[9]

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.[10] No single factor is

[5] Niagara did not file an entry of appearance in these proceedings and is on neither the public nor Administrative Protective Order ("APO") service list. *See* Niagara's Request for Confidential Treatment, EDIS Doc. 1236489.

[6] CR at I-5, PR at I-4.

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

[10] *See*, *e.g.*, *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United* (Continued…)

dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[11] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[12] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value,[13] the Commission determines what domestic product is like the imported articles Commerce has identified.[14]

B. Product Description

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

> The merchandise covered by these investigations is polyethylene terephthalate (PET) resin having an intrinsic viscosity of at least 70, but not more than 88, milliliters per gram (0.70 to 0.88 deciliters per gram). The scope includes blends of virgin PET resin and recycled PET resin containing 50 percent or more virgin PET resin content by weight, provided such blends meet the intrinsic viscosity requirements above.

(…Continued)
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).

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

[12] *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.").

[13] *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).

[14] *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).

> The scope includes all PET resin meeting the above specifications regardless of additives introduced in the manufacturing process.
>
> The merchandise subject to these investigations is properly classified under subheadings 3907.61.0000 and 3907.69.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the merchandise covered by these investigations is dispositive.[15]

The major end uses for PET resin include beverage bottles (*e.g.*, juice, water, and carbonated soft drinks), food containers (*e.g.*, salad dressings, jams and jellies, peanut butter, edible oils), household cleaners, and cosmetics. PET resin can also be used to produce other forms of packaging, such as food trays and drinking cups, as well as carpet fibers.[16] The scope defines PET resin as having an intrinsic viscosity ("IV") of at least 0.70, but not more than 0.88 deciliters per gram. IV is a measure of the molecular weight of PET resin and is a reflection of the resin's melting point, crystallinity, and tensile strength.[17]

C. Arguments and Analysis

Petitioners argue that the Commission should define a single domestic like product coextensive with Commerce's scope, as the Commission has done in prior PET resin investigations.[18] They contend that the domestic like product analysis that the Commission undertook in the prior PET resin investigations remain applicable in these current investigations, and is corroborated by questionnaire responses.[19] Respondents do not dispute Petitioners' domestic like product definition.[20]

Based on the record, we define a single domestic like product consisting of certain PET resin that is coextensive with Commerce's scope. We explain our reasoning below.

Physical Characteristics and Uses. PET resin is a commodity-grade thermoplastic polyester polymer that is produced in large volumes.[21] It is sold primarily in bulk form as chips or pellets to downstream end users/converters. The major end uses for PET resin include containers for beverages (*e.g.*, water bottles), food, household cleaners, and cosmetics. PET

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[15] *Polyethylene Terephthalate Resin from Brazil, Indonesia, the Republic of Korea, Pakistan, and Taiwan: Initiation of Less-Than-Fair-Value Investigations*, 82 Fed. Reg. 48977 (Oct. 23, 2017).

[16] CR at I-8, PR at I-6.

[17] CR at I-9, PR at I-7.

[18] Conference Tr. at 40 (Cannon); Petitioners' Postconference Brief at 3-6, *citing Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman*, Inv. Nos. 701-TA-531-533 and 731-TA-1270-1273 (Final), USITC Pub. 4606 at 6 (April 2016).

[19] Conference Tr. at 40 (Cannon); Petitioners' Postconference Brief at 3-6.

[20] Conference Tr. at 131 (Esserman).

[21] Conference Tr. at 29 (Freeman); CR at I-8, PR at I-6.

resin can also be used to produce other forms of packaging, such as food trays and drinking cups, as well as carpet fibers.[22]

Packaging-grade PET resin can be subdivided into two major end-use classifications: "cold-fill" and "hot-fill." Cold-fill refers to container applications where the substance being filled into the container can be filled at ambient room temperature. Hot-fill container applications require higher temperatures (up to 205°F) in the filling process, similar to a canning process.[23] Generally, cold-fill PET resin has a lower IV range than hot-fill PET resin; however, both fall within the IV range specified in the scope definition.[24]

Manufacturing Facilities, Production Processes, and Employees. PET resin is produced in two phases: the melt-phase polymerization phase that produces amorphous PET ("AMPET") and the solid-state polymerization treatment ("SSP") phase that processes AMPET into PET resin. AMPET resin is a precursor produced from a controlled chemical reaction between the petro-based chemical terephthalic acid ("TPA")[25] and the natural gas-based chemical mono ethylene glycol ("MEG"). Some additives are incorporated during this phase, but they do not alter the fundamental properties of the final PET resin product.[26] AMPET is then submitted to the SSP phase, which 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 through the bottom of the reaction tower where air cooling takes place in a closed circuit heat exchanger prior to storage for transport by rail or truck.[27] Except for the additives added to affect the IV levels for specific end uses, the manufacturing process and facilities do not differ among PET resins of varying IV levels.[28]

Channels of Distribution. During January 2014 to June 2017 period of investigation ("POI"), domestic producers sold the *** majority (ranging from *** percent) of PET resin to the same channel, ***.[29]

Interchangeability. U.S. producers supply PET resin products that are tailored to their customers' specific end uses based on IV levels, but all PET resin products within the scope definition are considered "packaging grade."[30] Petitioners also contend that domestically produced PET resin is interchangeable.[31] There is no information on the record to suggest otherwise.

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[22] CR at I-8, PR at I-6.

[23] Conference Tr. at 139 (Ream).

[24] Conference Tr. at 81 (McNaull).

[25] Older technologies use dimethyl terephthalate ("DMT") in lieu of TPA in manufacturing of AMPET resin, but TPA has largely displaced DMT as the main raw material component in the industry. CR at I-12 n.32, PR at I-8 n.32.

[26] CR at I-9, PR at I-7.

[27] CR at I-11 to 13, PR at I-8 to 10.

[28] Conference Tr. at 58, (McNaull), 66 (Paramasivan).

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

[30] Conference Tr. at 56 (Smith).

[31] Petitioners' Postconference Brief at 6; Conference Tr. at 23 (McNaull), 45 (Cannon).

Producer and Customer Perceptions. The record contains very limited information concerning this factor. Petitioners contend that while there are specific IV levels for certain types of end use applications, the industry generally uses the term "packaging grade" to cover all end uses for in-scope products. Their witnesses testified that customers and producers perceive PET resin as comprising a single product category.[32]

Price. Petitioners assert that domestically produced PET resin is sold within a reasonable range of prices.[33] The pricing data indicate that the prices for the four pricing products that are domestically produced fall within a very narrow range.[34]

Conclusion. PET resin products produced in the United States use the same basic chemistry, raw materials, manufacturing facilities, and production processes, and have the same 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 coextensive with Commerce's scope of these investigations.

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[35] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[36] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[37]

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[32] Petitioners' Postconference Brief at 6; Conference Tr. at 56 (Smith), 80 (McNaull), 149 (Ream).

[33] Petitioners' Postconference Brief at 6.

[34] *See* CR/PR at Tables V-3 to V-6; CR/PR at Figures V-2 to 5.

[35] 19 U.S.C. § 1677(4)(A).

[36] *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).

[37] 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);

(Continued…)

*** domestic producers, ***, are related parties because they imported subject merchandise.[38] During the POI, *** imported subject merchandise from Indonesia[39] and *** imported subject merchandise from Brazil.[40]

Petitioners argue that the domestic industry consists of all U.S. producers of PET resin.[41] Respondent M&G Brazil argues that M&G USA should be excluded from the domestic industry because the firm is affiliated with a subject producer in Brazil and imported subject merchandise from Brazil during the POI.[42] Graham argues that Indorama should be excluded from the domestic industry because its primary interest is not in domestic production.[43]

We discuss below whether appropriate circumstances exist to exclude any of the related parties from the domestic industry.

***. *** was responsible for *** percent of U.S. production of PET resin in 2016. As such, it is the *** domestic producer.[44] It supports the petitions, except with respect to

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(…Continued)

(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.

[38] CR at III-2, PR at III-2. The record also indicates that *** is a related party because it is controlled by an exporter of subject merchandise. 19 U.S.C. § 1677(7)(4)(B)(ii)(II). *** is a wholly owned subsidiary of Taiwanese PET resin producer ***. CR/PR at Table III-2. *** accounted for *** percent of domestic production in 2016 and was the *** domestic producer. It supports the petitions. *** primary interest lies in domestic production because it did not import any PET resin into the United States during the POI. While *** data indicate that *** exported subject merchandise during the first six months of 2017, it did not export subject merchandise throughout most of the POI. Thus, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.

[39] CR at III-2, PR at III-2. *** is affiliated with ***. CR/PR at Table III-2. Subject producer *** exported *** pounds of subject merchandise into the United States in 2014. *** Foreign Producers'/Exporters' Questionnaire at II-10. *** did not import any subject merchandise from its affiliated producers during the POI. *** Importer Questionnaire at II-6a.

[40] CR at III-2, PR at III-2; *** U.S. Importers' Questionnaire at II-5a. *** is affiliated with subject producer ***. CR/PR at Table III-2. *** exported *** pounds of PET resin in 2014, *** pounds in 2015, and *** pounds in 2016. *** Foreign Producer's/Exporters' Questionnaire at II-10. All of *** imports from Brazil were from ***. *** U.S. Importers' Questionnaire at II-5a.

[41] Petitioners' Postconference Brief at 6-8.

[42] M&G Brazil Postconference Brief at 8.

[43] Graham Postconference Brief at 6-8. Graham also argues that three of the four domestic producers (DAK, Indorama, and M&G USA) are related parties because they are the only PET resin producers in Mexico, which is a nonsubject country. Graham Postconference Brief at 6-7. Because DAK's *** and the record does not indicate that it is affiliated with importers or exporters of subject merchandise, it is not a related party. CR/PR at Tables III-1 and III-8.

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

imports from Indonesia, as to which it takes no position.[45] As a ratio of its U.S. production, its subject imports were *** percent in 2014, *** percent in 2015, and *** percent in 2016.[46] Because its subject import volume was ***, its principal interest lies in domestic production. Consequently, 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 resin in 2016. As such, it is the *** domestic producer.[47] It supports the petitions ***.[48] As a ratio of its U.S. production, its subject imports were *** percent in 2014, *** percent in 2015, and *** percent in 2016.[49] Relative to U.S. production, *** subject import volume was *** during the POI. Therefore, its principal interest lies in domestic production. For this reason, we find that appropriate circumstances do not exist to exclude *** from the domestic industry as a related party.[50]

In light of the foregoing and our domestic like product definition, we define one domestic industry consisting of all producers of PET resin.

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 petition shall be deemed negligible.[51] 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

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

[46] CR/PR at Table III-8. *** volume of subject imports from Indonesia was *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016. *Id*. Its operating performance was *** the industry average for most of the POI. Its ratio of operating income to net sales was *** percent in 2014, *** percent in 2015, and *** percent in 2016. CR/PR at Table VI-2.

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

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

[49] CR/PR at Table III-8. *** volume of subject imports from Brazil was *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016. *Id*. *** indicated that its imports were ***. CR/PR at Table III-8. Its ratio of operating income to net sales was *** percent in 2014, *** percent in 2015, and *** percent in 2016. This was *** the industry average throughout the POI. CR/PR at Table VI-2. *** capital expenditures, which primarily related to ***, represented *** and *** percent of the domestic industry's total capital expenditures in 2014 and 2015, respectively. CR at VI-9, PR at VI-3. Additionally, ***. Conference Tr. at ***.

[50] Respondents maintain that *** should be excluded because its primary interest is not in domestic production due to its volume of nonsubject imports from ***. ***. However, imports from nonsubject sources do not make a domestic producer a related party, s*ee* 19 U.S.C. § 1677(4)(A), and the Commission consequently does not consider nonsubject imports in its related parties analysis.

[51] 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i). The statute specifies higher negligibility thresholds in certain countervailing duty investigations. 19 U.S.C. § 1677(24)(B).

several countries subject to antidumping investigations 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.[52]

During September 2016 to August 2017, the 12-month period prior to the filing of the petitions, imports from each subject country exceeded the threshold of 3 percent of total imports applicable to antidumping investigations. Based on questionnaire data, imports from Brazil accounted for *** percent, imports from Indonesia accounted for *** percent, imports from Korea accounted for *** percent, imports from Pakistan accounted for *** percent, and imports from Taiwan accounted for *** percent of total imports. Official import statistics indicate that Brazil accounted for 12.2 percent, imports from Indonesia accounted for 4.9 percent, imports from Korea accounted for 8.1 percent, imports from Pakistan accounted for 7.3 percent, and imports from Taiwan accounted for 15.2 percent of total imports.[53] We accordingly find that imports from each subject country are not negligible.

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:

(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.[54]

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

[52] 19 U.S.C. § 1677(24)(A)(ii).

[53] CR at IV-10 to 11, PR at IV-5 to 6.

[54] *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).

whether the subject imports compete with each other and with the domestic like product.[55] Only a "reasonable overlap" of competition is required.[56]

A. Arguments of the Parties

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 between the subject imports and the domestic like product.[57]

Petitioners assert that PET resin is a fungible product that is produced to standard industry specifications, and that it is highly interchangeable regardless of source.[58] They also argue that subject imports compete with each other and with the domestic like product throughout the United States.[59] Petitioners further contend that subject imports and the domestic like product are sold through the same channel of distribution, which is primarily to ***, and that there is a substantial overlap in customers among the domestic industry and the U.S. importers of subject imports, with particular respect to ***.[60] Lastly, Petitioners maintain that subject imports were sold in the United States during each year of the POI.[61]

Respondents do not specifically contest the issue of cumulation in the preliminary phase of these investigations.[62]

B. Analysis

As an initial matter, Petitioners filed the antidumping duty petitions with respect to all five countries on the same day, September 26, 2017.[63] As discussed below, we find a reasonable overlap of competition between and among imports from each subject country, and between subject imports from each source and the domestic like product.

Fungibility. The record in the preliminary phase of these investigations indicates that PET resin is highly fungible, regardless of source. All responding U.S. producers and most

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

[56] 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.").

[57] Petition at 17-19; Petitioners' Postconference Brief at 14-18.

[58] Petitioners' Postconference Brief at 15-17.

[59] Petitioners' Postconference Brief at 17.

[60] Petitioners' Postconference Brief at 18.

[61] Petitioners' Postconference Brief at 18.

[62] Conference Tr. at 140 (Esserman).

[63] None of the statutory exceptions to cumulation applies.

importers, when comparing the domestic product with imports from individual subject sources or comparing imports from different subject sources, reported that PET resin from different sources is "always" interchangeable.[64] Additionally, all U.S. producers and most importers reported that factors other than price were never a significant factor in purchasing decisions.[65]

Channels of Distribution. During the POI, the *** majority of the domestic product (*** to *** percent) was sold to end users.[66] For four of the five subject countries, a majority of shipments of subject imports were sold to end users during most portions of the POI. For the remaining subject country, Taiwan, between *** and *** percent of shipments were made to end users during each full year of the POI. This figure rose to *** percent in January to June ("interim") 2017.[67] We also observe that the majority of U.S. shipments of the domestic like product was sold to bottle producers throughout the POI. In 2016 and interim 2017, a majority of shipments of imports from four of the five subject countries went to bottle producers; for the remaining subject country, Taiwan, the proportions were *** percent in 2016 and *** percent in interim 2017.[68] Consequently, a substantial proportion of PET resin from both domestic sources and each subject country was sold to end users, particularly bottle producers.

Geographic Overlap. Respondents contend that the U.S. market is geographically segmented,[69] but the record suggests otherwise. All U.S. producers reported selling PET resin to all regions in the contiguous United States.[70] Importers from each subject country reported selling to the Pacific Coast region, and importers from four of the five subject countries reported selling to the Northeast, Southeast, and Mountains regions.[71]

Simultaneous Presence in Market. Subject imports from Indonesia, Pakistan, and Taiwan were present in the U.S. market in each month of the POI. Subject imports from Brazil were present in each month from March 2015 to June 2017. Subject imports from Korea were present in each month of the POI except for May 2014, August 2014, October 2014, and January to March 2015.[72]

The relevant antidumping duty petitions were filed on the same day, the record indicates that there is a reasonable overlap of competition between and among subject imports and the domestic like product, and there are no arguments to the contrary. We consequently analyze subject imports from Brazil, Indonesia, Korea, Pakistan, and Taiwan on a cumulated

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

[65] CR/PR at Table II-7. In comparing the domestic product with subject imports from Taiwan, a plurality of importers reported that factors other than price were never important in purchasing decisions. In all other comparisons of domestic and subject merchandise or between subject imports, a majority of importers reported that factors other than price were never important. *Id.*

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

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

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

[69] *See* Ravago Postconference Brief at 6; Graham Postconference Brief at 30; Niagara Postconference Brief at 21; Conference Tr. at 105 (Ream), 120 (Safieddin).

[70] CR/PR at Table II-2.

[71] CR/PR at Table II-2.

[72] CR at IV-13 to 14, PR at IV-7 to 9; CR/PR at Table IV-5.

basis for our 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.[73] 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.[74] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[75] 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.[76] 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."[77]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[78] 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.[79] 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

[73] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[74] 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 ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[75] 19 U.S.C. § 1677(7)(A).

[76] 19 U.S.C. § 1677(7)(C)(iii).

[77] 19 U.S.C. § 1677(7)(C)(iii).

[78] 19 U.S.C. §§ 1671b(a), 1673b(a).

[79] *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).

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.[80]

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.[81] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[82] Nor does the

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[80] The Federal Circuit, in addressing the causation standard of the statute, has 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 re-affirmed in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), in which 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).

[81] 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.

[82] 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 (Continued…)

"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.[83] It is clear that the existence of injury caused by other factors does not compel a negative determination.[84]

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" and the Commission "ensure{s} that it is not attributing injury from other sources to the subject imports."[85] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[86]

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[87] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

Mittal Steel clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record 'to show that the harm occurred 'by reason of' the LTFV imports,'" and

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(…Continued)
tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

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

[84] *See Nippon*, 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.").

[85] *Mittal Steel*, 542 F.3d at 877-78; *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*.

[86] *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.").

[87] *Mittal Steel*, 542 F.3d at 875-79.

requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[88] Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

The progression of *Gerald Metals*, *Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.[89]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[90] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[91]

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

U.S. demand for PET resin is a function of the demand for U.S.-produced downstream products. Reported end uses for PET resin include beverage bottles, sheets, carpets, strapping, and thermoformed plastic containers. PET resin in bottles can be either cold-fill or hot-fill.[92]

All U.S. producers and the vast majority (12 out of 13) of responding importers reported that U.S. demand for PET resin increased during the POI.[93] Petitioners contend that demand for

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[88] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission's alternative interpretation of *Bratsk* as a reminder to conduct a non-attribution analysis).

[89] To that end, after the Federal Circuit issued its decision in *Bratsk*, the Commission began to present published information or send out information requests in the final phase of investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission's causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested information in the final phase of investigations in which there are substantial levels of nonsubject imports.

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

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

[92] CR at II-10, PR at II-6.

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

carbonated soft drink bottles has declined while the demand for water bottles, packaging, and carpeting has increased, leading to an overall increase in demand for PET resin.[94] Respondents similarly assert that the water bottle end-use segment has grown the most, followed by the segments in food packaging and hot-filled packaging.[95]

Apparent U.S. consumption for PET resin increased from *** pounds in 2014 to *** pounds in 2015, and then to *** pounds in 2016; apparent consumption was *** pounds in both interim 2016 and interim 2017.[96]

2. Supply Conditions

The domestic industry, subject imports, and nonsubject imports supplied the U.S. market during the POI.[97] The market shares of the domestic industry and nonsubject imports declined overall during the POI, while cumulated subject imports' market share increased overall during the POI.[98]

The domestic industry was the largest source of supply to the U.S. market and all four of the U.S. producers are part of multinational operations.[99] The domestic industry's market share increased marginally from *** percent in 2014 to *** percent in 2015, and then declined to *** percent in 2016; its market share was *** percent in interim 2016 and lower, at *** percent, in interim 2017.[100] Domestic producer M&G USA has indefinitely delayed the completion of its Corpus Christi, Texas plant, which was slated to come online in 2016. The facility reportedly would have production capacity of 1.1 million tons of PET resin per year with vertical integration capacity to produce 1.3 million tons of PTA per year.[101]

Cumulated subject imports increased their market share over the POI and became the second largest supplier after the domestic industry in interim 2017. Subject imports' market share increased from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016; their market share was *** percent in interim 2016 and higher, at *** percent, in interim 2017.[102]

Nonsubject imports' U.S. market share declined from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016; their market share was *** percent in interim 2016 and lower, at *** percent, in interim 2017.[103] Nonsubject imports from Mexico were the largest single source of imports in the U.S. market throughout the POI. Their market share increased from *** percent in 2014 to *** percent in 2016, and was *** percent in both

[94] Conference Tr. at 39 (Cullen); Petitioners' Postconference Brief at 9.

[95] CR at II-14, PR at II-8; Conference Tr. at 144 (Safieddin and Ream).

[96] CR/PR at Table IV-7. In any final phase of these investigations, we shall further examine the nature of demand trends during 2017.

[97] CR/PR at Tables IV-7 and C-1.

[98] CR/PR at Table IV-7.

[99] CR/PR at Tables III-2 and IV-7.

[100] CR/PR at Table IV-7.

[101] CR at III-4, PR at III-2.

[102] CR/PR at Table IV-7.

[103] CR/PR at Table IV-7.

interim 2016 and interim 2017, but their share of total imports only increased slightly from *** percent in 2014 to *** percent in 2016, and was lower in interim 2017 than in interim 2016.[104] *** PET resin production capacity in Mexico is owned by ***.[105] The market share of nonsubject imports from sources other than Mexico declined in in every full year of the POI, and their market share in interim 2017 was lower than interim 2016.[106] Nonsubject imports from Canada, China, India, and Oman were the subject of U.S. antidumping and countervailing duty investigations in 2015, resulting in duties being imposed on imports from these sources in 2016.[107]

3. Substitutability and Other Conditions

The record in the preliminary phase of these investigations indicates a high degree of substitutability between the domestic like product and subject imports.[108] The record also indicates that price is an important factor in the purchases of PET resin. As described above, all responding U.S. producers and a majority of importers reported that product from all sources was either "always" or "frequently" interchangeable, and that differences other than price were "sometimes" or "never" significant in purchasing decisions.[109]

The two main raw material inputs, PTA and MEG, historically account for over 75 percent of the cost of producing PET resin. As a share of the cost of goods sold ("COGS"), raw material costs ranged from *** to *** percent during the POI.[110] Costs for both PTA and MEG declined over the POI. Most of the decline occurred between January 2014 and March 2016,

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[104] CR/PR at Tables IV-2 and IV-7.

[105] CR at VII-48, PR at VII-28.

[106] The market share of nonsubject imports from Canada declined from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016; their market share was *** percent in interim 2016 and *** percent in interim 2017. The market share of nonsubject imports from sources other than Mexico and Canada declined from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016; their market share was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table IV-7.

[107] CR at I-6, PR at I-5; 81 Fed. Reg. 27977, 27979 (May 6, 2016).

[108] CR at II-15, PR at II-9.

[109] CR/PR at Tables II-6 and II-7. U.S. importer Ravago contends that PET resin imports and domestically produced PET resin generally do not compete for the same tier of customers. It maintains that the domestic product is sold to large purchasers while subject imports are sold to small or niche application purchasers. Ravago Postconference Brief at 6-7. In any final phase of these investigations, we invite parties to comment on the draft questionnaires on how to collect information concerning whether there is any divergence between customers for the domestic like product and the subject imports. The record in these preliminary phase investigations indicates at least some common customers (including ***) for the domestic like product and the subject imports. CR/PR at Table V-11.

[110] CR/PR at Table VI-1. Raw materials as a share of COGS was *** percent in 2014, *** percent in 2015, and *** percent in 2016; the ratio was *** percent in interim 2016 and *** percent in interim 2017. *Id*.

and costs for these products then stabilized through the end of 2016. PTA and MEG costs spiked in January 2017 and then fluctuated downwards until the end of the POI.[111]

Questionnaire data indicate that a plurality (*** percent) of domestic producers' U.S. commercial shipments were on long-term contracts, while the majority (*** percent) of importers' U.S. commercial shipments were spot sales.[112] The sales contract prices have built-in formulas that account for monthly fluctuations in the cost of MEG and PTA.[113]

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."[114]

Cumulated subject import volume increased significantly throughout the POI. Cumulated subject import volume rose from *** pounds in 2014 to *** pounds in 2015, and to *** pounds in 2016; the volume was *** pounds in interim 2016 and higher, at *** pounds, in interim 2017. Consequently, volume increased by *** percent from 2014 to 2015 and by *** percent from 2015 to 2016, with an overall increase of *** percent from 2014 to 2016; cumulated subject import volume was *** higher in interim 2017 than in interim 2016.[115]

The market share of cumulated subject imports also increased throughout the POI. It rose from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016, and was higher in interim 2017, at *** percent, than in interim 2016, when it was *** percent.[116]

For purposes of these preliminary determinations, we find that the volume of cumulated subject imports and the increase in that volume are significant both in absolute terms and relative to consumption in the United States.

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 –

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[111] Over the POI, costs for PTA declined by 29.7 percent and costs for MEG declined by 26.6 percent. CR at V-1, PR at V-1; CR/PR at Figure V-1.

[112] *** percent of domestic producers' U.S. commercial shipments were on annual contracts, *** percent were on short-term contracts, and *** percent were spot sales. *** percent of subject importers' U.S. commercial shipments were on long-term contracts, *** percent were on annual contracts, and *** percent were on short-term contracts. CR/PR at Table V-2.

[113] CR at V-3, PR at V-2; Petitioners' Postconference Brief at 12, Exh. 1 at 8-9; Graham Postconference Brief at 23; Conference Tr. at 38-39 (Cullen), 113 (Ream).

[114] 19 U.S.C. § 1677(7)(C)(i).

[115] CR/PR at Tables IV-6 and C-1. *Id*.

[116] CR/PR at Tables IV-7 and C-1. Subject imports' market share was *** percent in interim 2016 and *** percent in interim 2017. *Id*.

> (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.[117]

As stated above, the record indicates a high degree of substitutability between subject imports and the domestic like product and that price is an important consideration in purchasing decisions.[118]

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. sales values on four pricing products shipped to unrelated U.S. customers during the POI.[119] All four U.S. producers and nine importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[120] The pricing data account for approximately 97.6 percent of U.S. producers' shipments of PET resin, 96.9 percent of U.S. shipments of subject imports from Brazil, 94.5 percent of U.S. shipments of subject imports from Indonesia, 48.5 percent of U.S. shipments of subject imports from Korea, and all U.S. shipments of subject imports from Pakistan and Taiwan in 2016.[121]

Over the POI, subject imports undersold the domestic like product in 90 of 158 possible quarterly comparisons and oversold the domestic like product in the remaining 68 comparisons.[122] The quantity undersold was 712 million pounds and the quantity oversold was 544 million pounds.[123] For purposes of our preliminary determinations, given the high degree of substitutability between the subject imports and the domestic like product and that price is

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[117] 19 U.S.C. § 1677(7)(C)(ii).

[118] CR at II-15, PR at II-9; CR/PR at Table II-7.

[119] CR at V-7, PR at V-4 to 5. The pricing products are as follows:

Product 1 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in water bottle applications;

Product 2 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in sheet and strapping;

Product 3 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.78 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in carbonated soft drink applications; and

Product 4 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.75 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in heat set or hot fill applications; food, household, and other products.

[120] CR at V-7, PR at V-5.

[121] CR at V-7 to 8, PR at V-5.

[122] CR/PR at Table V-10. The margins of underselling ranged from 0.5 to 53.0 percent, with an average underselling margin of 10.0 percent. The margins of overselling ranged from 0.2 to 28.7 percent with an average overselling margin of 7.5 percent. *Id.*

[123] CR/PR at Table V-10.

an important consideration in purchasing decisions, we find that there has been significant underselling by cumulated subject imports.[124] [125]

We have also examined prices trends for the domestic like product. Prices for each of the four domestically produced pricing products declined irregularly from 2014 to 2016, increased during the first quarter of 2017, and then declined during the second quarter of 2017.[126] Between the first quarter of 2014 and the second quarter of 2017, prices for the four domestically produced pricing products declined between *** percent.[127] The rate of these declines is very close to the *** percent decline in unit raw materials costs between 2014 and interim 2017.[128] Indeed, during the POI the average unit values ("AUV") for total net sales and raw material costs tracked each other nearly identically.[129] Based on this preliminary record, the close correlation between prices and AUVs for the domestic like product and raw material cost seems to be a function of the main raw material inputs being an indexed component in the sales price for the domestic like product.[130] Because the price declines for the domestic like product during the POI appear to be the result of declines in raw material costs, we do not find that subject imports depressed prices for the domestic like product to a significant degree.[131]

We have also examined whether subject imports prevented price increases for the domestic like product that otherwise would have occurred. We observe that the COGS to net sales ratio decreased during 2014 to 2016. By contrast, the ratio was high and less favorable in interim 2017 (when it was *** percent) than in interim 2016 (when it was *** percent).[132] Furthermore, Petitioners assert that U.S. producers ***.[133] As previously stated, subject import

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[124] Petitioners contend that the information in the record concerning direct import costs also supports a finding of significant underselling. Petitioners' Postconference Brief at 25-26. We observe that direct import data constituted a relatively small percentage of pricing data about subject imports collected overall, but that direct imports were more prevalent during the latter portion of the POI. CR at V-19, PR at V-7.

[125] Chairman Schmidtlein joins footnote 124 but further notes that, while estimates of additional costs related to direct imports are limited, these estimates provide further support for a finding that subject import prices were generally lower than those for the domestic like product. CR/PR at Table V-7; *** U.S. Importers' Questionnaire at III-2o.

[126] CR/PR at Table V-3-6.

[127] CR/PR at Table V-9.

[128] CR/PR at Table VI-1.

[129] The total net sales AUV declined by $*** per pound in 2014-2015 and by $*** per pound in 2015-2016; the AUV in interim 2017 was $*** per pound higher than interim 2016. The raw material costs AUV declined by $*** per pound in 2014 to 2015 and by $*** per pound in 2015-2016; the AUV in interim 2017 was $*** per pound higher than interim 2016. CR/PR at Table VI-1.

[130] CR at V-3, PR at V-1 to 2; Petitioners' Postconference Brief at 12, Exh. 1 at 8-9; Graham Postconference Brief at 23; Conference Tr. at 38-39 (Cullen), 113 (Ream).

[131] Furthermore, data from the lost sales/lost revenue survey indicate that none of the 14 responding purchasers reported that U.S. producers reduced prices in order to compete with low-priced subject imports. CR/PR at Table V-14.

[132] CR/PR at Table VI-1.

[133] Petitioners' Postconference Brief at 28-29, Exh. 1 at 14.

volume and market share both were higher in interim 2017 than interim 2016.[134] We find a connection between the significant and increasing volume of subject imports and the cost-price squeeze the domestic industry experienced in interim 2017. Consequently, the record indicates that subject imports prevented the domestic industry from obtaining price increases that otherwise would have occurred in interim 2017.

Accordingly, based on the record in the preliminary phase of these investigations, we find that there was significant underselling of the domestic like product by subject imports. As a result of this underselling, subject imports gained market share at the expense of the domestic industry. The increasing volume of subject imports also prevented price increases for the domestic like product that would have otherwise occurred in interim 2017.

E. Impact of the Subject Imports[135]

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."[136]

Although the domestic industry increased its output at a time of growing demand, the increase was not commensurate with the rise in apparent consumption. Apparent U.S. consumption increased by *** percent from 2014 to 2016, and was essentially stable in interim 2016 and interim 2017.[137] However, between 2014 and 2016, the industry's production increased by 9.6 percent and its U.S. shipments by only 6.6 percent, and each of these indicators was lower in interim 2017 than in interim 2016.[138] The industry's share of apparent

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[134] CR/PR at Tables IV-6-7.

[135] In its notice initiating the antidumping duty investigations on PET resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan, Commerce reported estimated dumping margins ranging from 18.76 percent to 115.87 percent for imports from Brazil; 8.49 percent to 53.50 percent for imports from Indonesia; 55.74 percent to 101.41 percent for imports from Korea; 25.03 percent to 43.40 percent for imports from Pakistan; and 14.67 percent to 45.00 percent for imports from Taiwan. *Polyethylene Terephthalate Resin from Brazil, Indonesia, the Republic of Korea, Pakistan, and Taiwan: Initiation of Less-Than-Fair-Value Investigations*, 82 Fed. Reg. 48977 (Oct. 23, 2017).

[136] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[137] CR/PR at Table C-1.

[138] CR/PR at Table C-1. U.S. production of PET resin increased from 5.4 billion pounds in 2014 to 5.6 billion pounds in 2015, and then to 5.9 billion pounds in 2016; it was 2.8 billion pounds in interim 2016 and 2.7 billion pounds in interim 2017. CR/PR at Tables III-4 and C-1. The domestic industry's U.S. shipments increased from 5.1 billion pounds in 2014 to 5.4 billion pounds in 2015, and then to 5.5 billion (Continued…)

U.S. consumption fell from *** percent in 2014 to *** percent in 2016, and its share was *** percent in interim 2016 and lower, at *** percent, in interim 2017.[139]

During this period of growing demand, the domestic industry had idle capacity. Its production capacity remained relatively level at 6.5 billion pounds from 2014 to 2016, while capacity utilization increased from 81.9 percent in 2014 to 85.6 percent in 2015, and then to 89.1 percent in 2016. The industry's production capacity remained at 3.3 billion pounds in interim 2016 and interim 2017, and its capacity utilization was 86.3 percent in interim 2016 and 80.6 percent in interim 2017.[140]

The number of production and related workers ("PRWs"), total hours worked, and wages paid decreased from 2014 to 2016.[141] Hourly wages and productivity increased from 2014 to 2016, but were lower in interim 2017 than in interim 2016; hours worked per PRW increased marginally overall during the POI.[142] Unit labor costs decreased overall during the POI.[143]

The domestic industry showed some improvements in financial performance from 2014 to 2016, but performance deteriorated noticeably in interim 2017, when it sustained ***. Its net sales revenues declined overall from 2014 to 2016, and were essentially stable between interim 2016 and interim 2017.[144] Due largely to falling raw material prices, COGS declined

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(…Continued)
pounds in 2016; the volume was 2.75 billion pounds in interim 2016 and 2.68 billion pounds in 2017. CR/PR at Tables III-6 and C-1.

U.S. producers' end-of-period inventories increased by *** percent from *** pounds in 2014 to *** pounds in 2016. Inventories were *** pounds in interim 2016 and higher, at *** pounds, in interim 2017. CR/PR at Table III-7.

[139] CR/PR at Table IV-7.

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

[141] CR/PR at Table III-9. The number of PRWs decreased from 989 in 2014 to 889 in 2015, and then to 886 in 2016; the number of PRWs was 875 in interim 2016 and 891 in interim 2017. Total hours worked declined from 2.2 million hours in 2014 to 1.9 million hours in 2015, and then rose to 2.0 million hours in 2016; total hours worked were 987,000 hours in interim 2016 and 1.0 million in interim 2017. Wages paid declined from $73.4 million in 2014 to $70.8 million in 2015, and then to $68.6 million in 2016; wages paid were $37.5 million in interim 2016 and $32.8 million in interim 2017. *Id*.

[142] CR/PR at Table III-9. Hourly wages increased from $33.61 in 2014 to $37.96 in 2015, and then declined to $35.03 in 2016; hourly wages was $37.97 in interim 2016 and $32.46 in interim 2017. Productivity also increased from 2,454.4 pounds per hour in 2014 to 3,007.6 pounds per hour in 2015, and then declined slightly to 2,997.1 pounds per hour; productivity was 2,879.5 pounds per hour in interim 2016 and 2,626.2 pounds per hour in interim 2017. Hours worked per PRW declined from 2,207 hours in 2014 to 2,098 hours in 2015, and then increased to 2,211 hours in 2016; hours worked per PRW were 1,128 hours in interim 2016 and 1,135 hours in interim 2017. *Id*.

[143] CR/PR at Table III-9. Unit labor cost (dollars per 1,000 pounds) declined from $13.69 in 2014 to $12.62 in 2015, and then to $11.69 in 2016; unit labor cost was $13.19 in interim 2016 and $12.36 in interim 2017. *Id*.

[144] Total net sales value declined from *** in 2014 to *** in 2015, and then to *** in 2016; the total net sales value was *** in both interim 2016 and 2017. CR/PR at Table VI-1.

from 2014 to 2016, but were higher in interim 2017 than interim 2016 by $***.[145] Accordingly, while the ratio of COGS to net sales ratio declined from 2014 to 2016, the ratio reached a period peak of *** percent in interim 2017.[146] Gross profit, operating income, and net income each increased overall from 2014 to 2016, but were worse in interim 2017 than in interim 2016. The industry sustained *** in 2014 and interim 2017 and *** in 2014, 2015, and interim 2017.[147] Capital expenditures and research and development expenses increased from 2014 to 2016 and were lower in interim 2017 than in interim 2016.[148]

For the purposes of these preliminary determinations, we find that cumulated subject imports from Brazil, Indonesia, Korea, Pakistan, and Taiwan had a significant impact on the domestic industry. During the POI, despite an increase in U.S. demand for PET resin, the domestic industry lost market share to the significant and increasing volumes of subject imports that significantly undersold the domestic like product. The domestic industry had the ability to increase production, but was unable to do so or to increase its U.S. shipments commensurate with demand. As a result, it lost output and revenues that it otherwise would have obtained. Additionally, its inability to increase prices commensurately with costs in interim 2017 while subject import volumes continued to rise caused the industry to lose further revenues it would otherwise have obtained during a time when it incurred poor and deteriorating profitability.

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.[149] We also observed above that nonsubject imports had a declining presence in the United States.[150] While Respondents argue that nonsubject imports from Mexico increased their market share and volume over the POI,[151] the increase in the volume of

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[145] COGS declined from *** in 2014 to *** in 2015, and then to *** in 2016; it was *** in interim 2016 and higher, at *** in interim 2017. CR/PR at Table VI-1.

[146] The COGS to net sales ratio declined from *** percent in 2014 to *** percent in 2015, and then to *** percent in 2016; the ratio was *** percent in interim 2016 compared with *** percent in interim 2017. CR/PR at Table VI-1.

[147] Gross profit was *** in 2014, *** in 2015, *** in 2016, *** in interim 2016, and *** in interim 2017. Operating income was *** in 2014, *** in 2015, *** in 2016, *** in interim 2016, and *** in interim 2017. The ratio of operating income to net sales rose from *** percent in 2014 to ***percent in 2015, and then to *** percent in 2016; it was *** percent in interim 2016 and lower, at *** percent, in interim 2017. Net income was *** in 2014, *** in 2015, *** in 2016, *** in interim 2016, and *** in interim 2017. CR/PR at Table VI-1.

While we examine the domestic industry as a whole, we observe that three of the four domestic producers (***) had worse financial performance in interim 2017 than in interim 2016, and the remaining producer, ***, had consistently unprofitable operations throughout the POI. CR/PR at Tables VI-1 and VI-2.

[148] CR/PR at Table VI-3.

[149] CR/PR at Table IV-7.

[150] CR/PR at Tables IV-7.

[151] *See* Graham Postconference Brief at 21-22, 29; Niagara Postconference Brief at 11-13; Ravago Postconference Brief at 12; Conference Tr. at 105-107 (Ream).

cumulated subject imports was greater than that of imports from Mexico.[152] Furthermore, the majority of imports from Mexico were priced higher than subject imports and the domestic like product during the POI.[153] Consequently, nonsubject imports are not responsible for the market share losses that the domestic industry incurred due to the low-priced subject imports.

We are also not persuaded by Respondents' argument that subject imports necessarily entered the U.S. market to resolve domestic supply shortage.[154] While the record indicates that certain domestic producers imported PET resin from subject sources to supplement domestic production, the quantity of such imports was relatively modest.[155] Moreover, the record indicates that the domestic industry had available capacity throughout the POI, which indicates that there was no supply shortage.[156]

Respondents conversely argue that the prospect of the new Corpus Christi plant led to an anticipation of excess supply among the domestic industry, which caused intense price competition among the domestic producers and a scramble to secure market share that started in 2015.[157] However, as discussed above and recognized by Respondents, the observed price declines through 2016 appear to have been the result of the decline in the costs of the main raw material inputs.[158] Accordingly, none of the alternative factors cited by respondents can explain the significant impact of the subject imports on the domestic industry.

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 resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan that are allegedly sold in the United States at less than fair value.

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[152] CR/PR at Tables IV-6 and IV-7.

[153] CR/PR at Tables C-1, E-1 to E-5.

[154] Graham Postconference Brief at 19-20, Exh. 1.A; Niagara Postconference Brief at 18-19; Ravago Postconference Brief at 10; Conference Tr. at 18 (Esserman), 102-104 (Ream), 111 (Ream), 130 (Safieddin).

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

[156] CR/PR at Table III-5. Respondents also argue that events relating to M&G USA's idling of its Apple Grove, West Virginia plant, Hurricane Harvey, and M&G USA's inability to pay its raw material suppliers as indication that there is a shortage of domestic supply. Graham Postconference Brief at 12-13; Niagara Postconference Brief at 20; Ravago Postconference Brief at 10; Conference Tr. at 134 (Safieddin). However, all of these events occurred after the POI and consequently cannot explain the significant subject import volume increase that occurred during the POI.

[157] Graham Postconference Brief at 12-13; Ravago Postconference Brief at 10; Niagara Postconference Brief at 20.

[158] Graham Postconference Brief at 24; Niagara Postconference Brief at 8.

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 DAK Americas LLC, Charlotte, North Carolina; Indorama Ventures USA, Inc., Decatur, Alabama; M&G Polymer USA, LLC, Houston, Texas; and Nan Ya Plastics Corporation, America, Lake City, South Carolina, on September 26, 2017, 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 resin ("PET resin")[1] from Brazil, Indonesia, Korea, Pakistan, and Taiwan. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
September 26, 2017	Petitions filed with Commerce and the Commission; institution of Commission investigations (82 FR 45890, October 2, 2017)
October 16, 2017	Commerce's notice of initiation (82 FR 48977, October 23, 2017)
October 17, 2017	Commission's conference
November 8, 2017	Commission's vote
November 13, 2017	Commission's determinations
November 20, 2017	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 who appeared at the conference is presented in appendix B.

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--[4]

> *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*

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

effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—[5]

(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 resin is generally used to produce bottles and containers for beverages, foods, household cleaners, and cosmetics. It can also be used to produce other forms of packaging, such as food trays and drinking cups, as well as high-strength strapping and carpet fibers.[6] The four U.S. producers of PET resin are DAK Americas ("DAK"), M&G Polymers USA ("M&G"), Indorama Ventures Holdings LP ("Indorama"), and Nan Ya Plastics Corporation, America ("Nan Ya"). The leading foreign producers of PET resin in subject countries are *** from Brazil; *** from Indonesia; *** from Korea; *** from Pakistan; and *** from Taiwan.

The leading U.S. importers of PET resin from the respective subject countries are *** from Brazil; ***[7] from Indonesia; ***[8] from Korea; *** from Pakistan; and *** from Taiwan.

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

[6] Petitions, pp. 7-8.

[7] *** did not submit a response to the Commission's questionnaire in the preliminary phase of these investigations.

[8] *** was unable to submit a response to the Commission's questionnaire in the preliminary phase of these investigations due to ***.

Leading U.S. importers of PET resin from Canada and Mexico include ***. U.S. purchasers of PET resin are firms that primarily produce packaging for beverages and food; leading purchasers include ***.

Apparent U.S. consumption of PET resin totaled approximately *** ($***) in 2016. U.S. producers' U.S. shipments of PET resin totaled 5.5 billion pounds ($2.8 billion) in 2016, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. Shipments of U.S. imports from subject sources totaled *** pounds ($***) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. Shipments of U.S. imports from nonsubject sources totaled *** pounds ($***) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of four firms that accounted for all known U.S. production of PET resin during 2016. U.S. import data are based on questionnaire responses from 17 firms that represent *** percent of total subject imports, and *** percent of U.S. imports from Brazil, *** percent of U.S. imports from Indonesia, *** percent of imports from Korea, *** percent of U.S. imports from Pakistan, and *** percent of imports from Taiwan in 2016. Data from those responses are supplemented by *** and official U.S. import statistics, as appropriate, in the import presentation in this report. Foreign industry data are based on usable responses from two firms in Brazil, three firms in Indonesia, two firms in Korea, one firm in Pakistan, and one firm in Taiwan. These firms accounted for ***, and represented *** percent, *** percent, and *** percent of Brazilian, Indonesian, and Taiwanese exports to the United States, respectively. They accounted for *** percent, *** percent, *** percent, *** percent, and *** percent of total PET resin production in Brazil, Indonesia, Korea, Pakistan, and Taiwan, respectively.

PREVIOUS AND RELATED INVESTIGATIONS

PET resin has been the subject of two prior countervailing and antidumping duty investigations in the United States. In 2004, antidumping and countervailing duty investigations on PET resin from India, Indonesia, Taiwan, and Thailand were initiated by Commerce and instituted by the Commission.[9] Commerce terminated the antidumping investigation on imports of PET resin from Taiwan and the countervailing duty investigation on imports of PET resin from Thailand.[10] The Commission reached negative injury determinations concerning imports of PET resin from India, Indonesia, and Thailand.[11]

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[9] *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273,* Publication 4604, April 2016, p. I-4.

[10] Ibid.

[11] Ibid.

On March 15, 2015, petitions were filed by DAK Americas, M&G Chemicals, and Nan Ya Plastics Corporation, America alleging that imports of PET resin from Canada, China, India, and Oman were being sold at LTFV and subsidized by the governments of China, India, and Oman.[12] Following Commerce's final affirmative dumping and countervailing duty determinations, the Commission made affirmative injury determinations with respect to imports from Canada, China, India, and Oman.[13]

NATURE AND EXTENT OF SALES AT LTFV

On October 23, 2017, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on PET resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan. Commerce has initiated antidumping duty investigations based on estimated dumping margins of 18.76 percent to 115.87 percent for Brazil; 8.49 percent to 53.50 percent for Indonesia; 55.74 percent to 101.41 percent for Korea; 25.03 percent to 43.40 percent for Pakistan; and 14.67 percent to 45.00 percent for Taiwan.[14]

THE SUBJECT MERCHANDISE

Commerce's scope[15]

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

> *The merchandise covered by these investigations is polyethylene terephthalate (PET) resin having an intrinsic viscosity of at least 70, but not more than 88, milliliters per gram(0.70 to 0.88 deciliters per gram). The scope includes blends of virgin PET resin and recycled PET resin containing 50 percent or more virgin PET resin content by weight, provided such blends meet the intrinsic viscosity requirements above. The scope includes all PET resin meeting the above specifications regardless of additives introduced in the manufacturing process.*
>
> *The merchandise subject to these investigations is properly classified under subheadings 3907.61.0000 and 3907.69.0000 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS*

[12] *Certain Polyethylene Terephthalate Resin from Canada, the People's Republic of China, India, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 80 FR 18376, April 6, 2015; *Certain Polyethylene Terephthalate Resin from the People's Republic of China, India, and the Sultanate of Oman: Initiation of Countervailing Duty Investigations*, 80 FR 18369, April 6, 2015

[13] *Polyethylene Terephthalate Resin from Canada, China, India, and Oman,* 81 FR 26832, May 4, 2016.

[14] *Polyethylene Terephthalate Resin from Brazil, Indonesia, the Republic of Korea, Pakistan, and Taiwan: Initiation of Less-Than-Fair-Value Investigations*, 82 FR 48977, October 23, 2017.

[15] Ibid.

subheadings are provided for convenience and customs purposes, the written description of the merchandise covered by these investigations is dispositive.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations is currently imported under statistical reporting numbers 3907.61.0000 and 3907.69.0000[16] of the Harmonized Tariff Schedule of the United States ("HTS"). The 2017 general rate of duty is 6.5 percent *ad valorem* for HTS statistical reporting numbers 3907.61.0000 and 3907.69.0000; originating goods from Korea are dutiable at 2.6 percent during 2017 under the United States-Korea Free Trade Agreement. Both subheadings are designated as covering goods eligible for duty-free entry under the Generalized System of Preferences, but products of Indonesia are excluded from eligibility. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

THE PRODUCT

Description and applications[17]

PET resin is a large-volume, commodity-grade thermoplastic polyester polymer. PET resin is predominantly sold in bulk form as chips or pellets to downstream end users/converters. Prior to being converted to downstream products, virgin PET resin pellets are noted for being slightly opaque and whitish in color. Converters use PET resin to produce bottles, containers, and packaging. The major end uses for PET resin include bottles for beverages (e.g., juice, water, and carbonated soft drinks), containers for food (e.g., salad dressings, jams and jellies, peanut butter, edible oils), household cleaners, and cosmetics. PET resin can also be used to produce other forms of packaging, such as food trays and drinking cups, as well as carpet fibers.[18] End-use products manufactured from PET resin are clear, transparent, sterile, lightweight, and thermally stable. Other properties of note for articles made from PET resin are impact resistance, closure integrity, durability, and strength.

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[16] Between 2014 and 2016, the merchandise subject to these investigations was imported under statistical reporting number 3907.60.0030. Effective January 1, 2017, HS subheading 3907.60 was subdivided to create subheadings 3907.61.00 and 3907.69.00, with classification criteria based on the viscosity number of the product, at the request of the European Union to the World Customs Organization. Petitions, p. 11. The amended HTS statistical number expanded the product coverage to include certain PET resin outside the scope defined by Commerce. Petitions, p. 12.

[17] Unless otherwise noted, this information is based on *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273*, USITC Publication 4604, April 2016, pp. I-9-I-10.

[18] Petitions, pp. 7-8.

Packaging and bottle-grade PET resin typically have an intrinsic viscosity ("IV") of at least 0.70 or more, but not more than 0.88 deciliters per gram.[19] IV is a measure of the molecular weight of PET resin and is a reflection of the resin's melting point, crystallinity and tensile strength.[20] Bottle-grade resins may contain various additives, including recycled PET, which can vary depending on the desired properties for an end-use product.[21] However, these additives do not alter the fundamental properties of the subject product. The PET resin excludes amorphous ("AMPET") resin,[22] which has an IV below 0.70 deciliters per gram, and certain further processed PET resins used in applications with resulting resins having an IV greater than 0.88 deciliters per gram, such as some high tensile strength strapping and extrusion blow mold.[23]

Packaging-grade PET resin can be subdivided into two major end-use classifications: "cold-fill" and "hot-fill." Cold-fill refers to container applications where the substance being filled into the container does not require excessive temperatures in the filling process, i.e., can be filled at ambient room temperature. Hot-fill refers to container applications where the substance poured into the container requires high temperatures (up to 205°F)[24] in the filling process, similar to a canning process. Generally, cold-fill PET resin has a lower IV range than hot-fill PET resin; however, both fall within the IV range defining the product subject to these investigations.[25]

Converters produce bottles and other specialty food containers predominately by an injection stretch blow-molding process. For this process, an intermediate "preform" product is produced by injection molding, followed by a stretch blow-molding process to form finished PET containers. No U.S. PET resin producer has any significant amount of preform or stretch blow-molding equipment intended for commercial use, nor does any domestic PET resin producer have ownership in downstream applications for its polymers. Most bottle converters manufacture both the bottle preforms and the final blow-molded bottles. PET resin can also be extruded into sheets of various thicknesses or thermoformed into clear cups, vegetable containers, strawberry clamshells, *etc*.

The scope of this case also includes blends of virgin and recycled PET resin. Recycled content does not impact the IV of the product.[26] However, recycled PET resin is not a complete substitute for virgin PET resin[27] due to impurities that are near impossible to remove. Several

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[19] Test procedure to determine IV is ASTM D4603. "Solution Intrinsic Viscosity" https://www.plastictechnologies.com/test/preform-and-bottle-testing/solution-intrinsic-viscosity.aspx (accessed October 20, 2017).

[20] Conference transcript, p. 29 (Freeman).

[21] Conference transcript, p. 67 (Paramasivam); p. 128 (Ream).

[22] AMPET is used as a precursor and is processed into PET resin.

[23] An extrusion blow mold is a very large container with a clear handle, commonly seen as orange juice containers. Conference transcript, pp. 79-80 (McNaull).

[24] Conference transcript, p. 139 (Ream).

[25] Conference transcript, p. 81 (McNaull).

[26] Conference transcript, p. 81 (McNaull).

[27] Conference transcript, p. 122 (Safieddin).

domestic producers blend small amounts of recycled PET resin with virgin PET resin. The American Plastics Council has labeled PET resin used for bottles with the "PETE 1" code for recycling purposes. This label is usually found on or near the bottom of the PET bottle or container.[28]

PET resin must be protected from moisture and contamination during transport. Imported and exported products are typically shipped offshore in sealed one metric ton poly bags (super sacks) within large metal shipping containers. Subject imported product may be removed from the containers and temporarily stored in order to have some local inventory and save on demurrage. Both imported and domestic product may be shipped bulk inland in specially lined railcars or truck beds in lots of 200,000 pounds and 50,000 pounds, respectively. According to conference testimony, subject imported product can be the most competitive with the U.S. producers in coastal regions, where the U.S. producers have the higher cost of inland freight, but where the importers have the lower cost of freight.[29] Cost can vary a great deal depending on logistics of shipping.

Manufacturing processes[30]

Since the Commission's related investigations concerning PET resin from Canada, China, India, and Oman in 2016 (Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final)), there have not been any major changes or "breakthroughs" in manufacturing processes for PET resin.[31] Producers manufacture the precursor AMPET resin from a controlled chemical reaction between the petro-based chemical terephthalic acid ("TPA")[32] and the natural gas-based chemical ethylene glycol ("EG")[33] in a melt-phased polymerization treatment. Firms manufacture packaging-grade PET resin by submitting AMPET resin to a solid-state polymerization ("SSP") treatment. In both the domestic industry and the subject country foreign industries, PET resin producers have both the melt-phase polymerization capability to produce AMPET and the solid-state polymerization capability to produce PET resin.

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[28] PET Resin Association, "Plastics Manufacturers Reconfirm PET Bottles Do NOT Contain BPA," http://www.petresin.org/news_NoBPAinPET.asp, retrieved October 20, 2017.

[29] Conference transcript, p. 137 (Safieddin).

[30] Unless otherwise noted, this information is based on *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273*, USITC Publication 4604, April 2016, pp. I-11-I-12.

[31] Conference transcript, p. 78 (Rosenthal).

[32] Older technologies use dimethyl terephthalate ("DMT") in lieu of TPA in manufacturing of AMPET resin, but TPA has largely displaced DMT as the main raw material component in the industry. Also, there are several grades of TPA. The best quality TPA is purified terephthalic acid ("PTA") and this is the quality of TPA that is sold on the merchant market to PET resin producers. PET resin lines can use other qualities of TPA other than PTA; however, if non-purified forms of TPA are used in PET resin manufacturing, the PET resin lines must compensate for the lower quality raw material input through further in-line chemical processing.

[33] Also referred to as MEG, or monoethylene glycol.

Packaging-grade PET resin is produced by submitting AMPET resin to a SSP treatment, which increases the IV of the polyester pellet to a level within the range of IVs as defined within the scope of these investigations. The amorphous chip's raw material feedstocks, TPA and EG, are based on xylene[34] and ethylene, respectively, from the petrochemical industry; thus, TPA and EG feedstock prices for the manufacture of AMPET resin are variably dependent upon prices in the larger petrochemical industry. TPA and EG account for approximately 98 percent of AMPET resin by weight and an estimated 75 to 80 percent of PET resin by cost. AMPET resin producers can modify polymer properties by incorporating nominal amounts of copolymer chemical reactants such as isophthalic acid ("IPA") at levels of 2 to 3 percent by weight.[35]

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 for transport by rail or truck.[36] Some PET resin producers are partially vertically integrated between feedstocks and PET resin production, while others are not.[37]

Some U.S. producers utilize a Melt to Resin ("MTR") process in their manufacturing, which is different from the conventional SSP technology.[38] In MTR technology, no solid state crystallizer is used, which saves on the cost of that equipment.[39] [40] The MTR process has lower residence time, resulting in minimal generation of secondary products and cross linked polymers (16 hour residence times vs. the conventional 24 hours), more stable parameters lower crystallinity, lower temperature processing, spherical pellet output compared to cylinder shaped output which leads to lower dust generation and lower IV drop during downstream

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[34] There was a meta-xylene shortage due to unplanned production outages which has affected TPA production. The tight supply should ease in late 2017 and early 2018. Conference transcript, p. 155 (Safieddin).

[35] Copolymer resin is usually demanded by consumers because of improved processing speed and physical properties. Homopolymers define unmodified forms of PET resin.

[36] Nitrogen gas of high purity is typically produced onsite by air liquefaction and distillation.

[37] Conference transcript, p. 117 (Safieddin); p. 147 (Esserman).

[38] Uhde Inventa-Fischer, "MTR Melt-To Resin Technology for cost-efficient, energy saving production of high-quality PET," https://www.thyssenkrupp-industrial-solutions.com/media/products_services/chemical_plants_processes/polymer_plants/brochure_pet.pdf, retrieved October 20, 2017.

[39] Plastemart, "A new technology offers cost benefit to PET producers," http://www.plastemart.com/upload/Literature/New-technology-offers-cost-benefit-to-PET-producers.asp, retrieved February 1, 2016.

[40] Uhde Inventa-Fischer, "MTR Melt-To Resin Technology for cost-efficient, energy saving production of high-quality PET," https://www.thyssenkrupp-industrial-solutions.com/media/products_services/chemical_plants_processes/polymer_plants/brochure_pet.pdf, retrieved October 20, 2017.

processing, a more narrow processing window due to narrow molecular weight distribution and improved process ability, lower thermal heat stress, and energy cost savings.[41]

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations.

[41] Ibid.

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

U.S. MARKET CHARACTERISTICS

PET resin is used in four main applications: bottles for soft drinks and other beverages, sheets used for making clam shells in which items such as fruits and vegetables are packaged, carpet fibers, and strapping used to ship bulk products such as lumber.[1] The largest single end use is the manufacture of beverage bottles. The U.S. market for PET resin is supplied by both U.S. producers and numerous import sources. Apparent U.S. consumption of PET resin increased by *** percent during 2014–16.

CHANNELS OF DISTRIBUTION

Both U.S. producers and importers sold mainly to end users, as shown in table II-1, with imports from Taiwan most likely to use distributors. In most years, producers and subject importers listed water and/or other bottlers as the single largest end-use channel. *** said the distribution system is not dependent on the end-use application.[2]

Table II-1
PET resin: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2014–16, January-June 2016, and January-June 2017

* * * * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers reported selling PET resin to all regions in the contiguous United States (table II-2). Importers also reported selling to all U.S. regions; most reported selling to the Pacific Coast, followed by the Northeast. For U.S. producers, 9.7 percent of sales were within 100 miles of their production facility, 70.0 percent were between 101 and 1,000 miles, and 20.2 percent were over 1,000 miles. Importers sold 55.8 percent within 100 miles of their U.S. point of shipment, 43.7 percent between 101 and 1,000 miles, and 0.5 percent over 1,000 miles.

[1] *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman*, Investigations Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final), Publication 4604, April 2016, p. II-1; conference transcript, p. 29 (Freeman).

[2] Conference transcript, p. 58 (McNaull).

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

Region	U.S. producers	Subject U.S. importers				
		Brazil	Indonesia	Korea	Pakistan	Taiwan
Northeast	4	2	---	1	2	2
Midwest	4	2	---	---	1	---
Southeast	4	2	1	---	2	1
Central Southwest	4	1	---	---	1	---
Mountains	4	1	1	2	---	1
Pacific Coast	4	2	1	3	1	4
Other[1]	2	---	---	---	---	1
All regions (except Other)	4	1	---	---	---	---
Reporting firms	4	2	1	3	2	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

Domestic production

Based on available information, U.S. producers of PET resin have the ability to respond to changes in demand with low-to-moderate changes in the quantity of shipments of U.S.-produced PET resin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the somewhat limited availability of unused capacity, limited ability to shift shipments from alternate markets, and limited ability to produce alternate products, tempered somewhat by some ability to ship from inventories.

Industry capacity

Domestic capacity utilization increased from 81.9 percent to 89.1 percent from 2014 to 2016 (table II-3) and then declined from 86.3 percent in January-June 2016 to 80.6 percent in the same period in 2017. This moderately high level of capacity utilization suggests that U.S. producers may have low-to-moderate ability to increase production of PET resin in response to an increase in prices.

Table II-3
PET resin: Capacity, capacity utilization, inventories, ability to shift to alternative products, home market share, and share sold to other export markets, by country

Country	2014	2016	2014	2016	2014	2016	Ability to shift to alternate product (number of firms)	Home market shipments as a share of total shipments in 2016 (percent)	Exports to markets other than the U.S. as a share of total shipments in 2016 (percent)
	Capacity (millions of pounds)		Capacity utilization (percent)		Inventories as a ratio to total shipments (percent)				
United States	6,541	6,587	81.9	89.1	***	***	2	***	***
Brazil	***	***	***	***	***	***	0	***	***
Indonesia	***	***	***	***	***	***	1	***	***
Korea	***	***	***	***	***	***	0	***	***
Pakistan	***	***	***	***	***	***	1	***	***
Taiwan	***	***	***	***	***	***	1	***	***

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

Alternative markets

U.S. producers' exports, as a percentage of total shipments, increased from *** percent in 2014 to *** percent in 2016. The small share of exports indicates that U.S. producers have a limited ability to shift shipments from alternate markets.

Inventory levels

U.S. producers' inventories increased between 2014 and 2016 and were lower in January-June 2017 compared to the same period in 2016. Relative to total shipments, U.S. producers' inventory levels increased from *** percent in 2014 to *** percent in 2016, but fell from *** percent in January-June 2016 to *** percent in the same period in 2017. These inventory levels suggest that U.S. producers may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

Two of the four responding U.S. producers stated that they could switch production from PET resin to other products. Other products that producers reportedly can produce on the same equipment as PET resin are ***. Some production of other products on the same equipment indicates that U.S. producers may have some ability to shift to an alternative product. However, U.S. producers stated that doing so would be expensive, or that such switching is limited and alternative products are already at maximum levels.[3]

[3] *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigations Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final)*, Publication 4604, April 2016, p. II-5.

Subject imports from Brazil[4]

Based on available information, producers of PET resin from Brazil have the ability to respond to changes in demand with moderate-to-high changes in the quantity of shipments of PET resin to the U.S. market. As shown in table II-3, the main contributing factors to this degree of responsiveness of supply are Brazil's relatively high and increasing capacity, which has increased the availability of unused capacity. In 2016, Brazil's capacity was larger than any other subject country's capacity. Factors mitigating responsiveness of supply include a limited ability to shift shipments from alternate markets. The vast majority of Brazil's PET resin shipments were sold domestically while shipments to markets other than the United States, as a percentage of total shipments, are relatively low at *** percent.

Subject imports from Indonesia[5]

Based on available information, producers of PET resin from Indonesia have the ability to respond to changes in demand with moderate changes in the quantity of shipments of PET resin to the U.S. market. As shown in table II-3, the main contributing factors to this degree of responsiveness of supply are the ability to shift shipments from alternate markets, some available capacity, and for one importer the possibility of shifting production to an alternative product, namely ***. However, Indonesia had the lowest production capacity among all subject countries in 2016.

Subject imports from Korea[6]

Based on available information, producers of PET resin from Korea have the ability to respond to changes in demand with low-to-moderate changes in the quantity of shipments of PET resin to the U.S. market. As shown in table II-3, the main contributing factors to this degree of responsiveness of supply are the limited availability of unused capacity and low inventories, tempered somewhat by a moderate ability to shift shipments from alternate markets.

Subject imports from Pakistan[7]

Based on available information, producers of PET resin from Pakistan have the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of

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[4] For data on the number of responding foreign firms and their share of U.S. imports from Brazil, please refer to Part I, "Summary Data and Data Sources."

[5] For data on the number of responding foreign firms and their share of U.S. imports from Indonesia, please refer to Part I, "Summary Data and Data Sources."

[6] For data on the number of responding foreign firms and their share of U.S. imports from Korea, please refer to Part I, "Summary Data and Data Sources."

[7] For data on the number of responding foreign firms and their share of U.S. imports from Pakistan, please refer to Part I, "Summary Data and Data Sources."

PET resin to the U.S. market. As shown in table II-3, the main contributing factors to this degree of responsiveness of supply are a growing capacity coupled with increased availability of unused capacity, ability to shift shipments from alternate markets, and the ability to shift production to alternate products, namely ***. Pakistan's capacity grew *** percent between 2014 and 2016.

Subject imports from Taiwan[8]

Based on available information, producers of PET resin from Taiwan have the ability to respond to changes in demand with low-to-moderate changes in the quantity of shipments of PET resin to the U.S. market. As shown in table II-3, the main contributing factors to this degree of responsiveness of supply are the limited availability of unused capacity and low inventories, tempered by an ability to shift shipments from alternate markets and ability to shift production to an alternate product, namely ***.

Nonsubject imports

Nonsubject imports accounted for *** percent of total U.S. imports in 2016. Mexico was the single largest source of U.S. imports (larger than any individual subject country) and Canada was the second-largest nonsubject source of U.S. imports in 2016. Combined, these countries accounted for *** percent of nonsubject imports in 2016.

Supply constraints

Producers and importers were asked if their firm had refused or been unable to supply any customers since January 1, 2014. All four producers and seven importers reported that there had not been any such supply disruptions, but five importers indicated that they had experienced such disruptions. These importers reported that supply was disrupted because of weather, port congestion, and other port disruptions; problems obtaining the input PTA; and limited supply from ***.

Petitioners said that M&G's idling of production at its West Virginia facility had led to a temporary supply disruption since September 2017.[9] One respondent said it has "not seen a market this tight in over 20 years," and that DAK and Indorama "let it be known that they are

[8] For data on the number of responding foreign firms and their share of U.S. imports from Taiwan, please refer to Part I, "Summary Data and Data Sources."

[9] The idling of production resulted from M&G's inability to pay its raw material suppliers, who then stopped supplying the raw materials to M&G. Conference transcript, p. 33 (Fournier); pp. 88, 90 (Rosenthal).

running tight on supply, and have put customers on allocation."[10] Two of the respondents reported that they are currently on allocation from multiple domestic producers.[11]

U.S. demand

Based on available information, the overall demand for PET resin 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, although PET resin is usually a large share of the cost of the end-use products in which it is used. Demand for PET resin is derived from the demand for bottles and other containers that use PET resin, as well as on other products (including strapping and sheet) that are made of PET resin.

End uses and cost share

U.S. demand for PET resin depends on the demand for U.S.-produced downstream products. Reported end uses include bottles of various types (e.g., water, carbonated beverages), sheets, carpets, strapping, and thermoformed plastic containers. PET resin in bottles can be either cold-fill (i.e., for bottles meant to be filled with cold liquids) or hot-fill (i.e., for bottles that can be filled with hot liquids, like sport drinks).[12]

PET resin accounts for a large share of the cost of the end-use products in which it is used, but this depends somewhat on how the end-use product is defined. For example, PET resin is a smaller share of the cost of a bottled beverage than the share of the cost of a bottle alone. Reported cost shares for some end uses were as follows. For the cost of the bottle including the liquid inside, two producers and three importers estimated that PET resin accounted for 10-40 percent of the total cost. For bottles without liquids inside, four producers and five importers estimated that PET resin accounted for 24-80 percent of the cost, of which seven producers or importers said the PET resin cost share was 45-65 percent. For carpet, three producers and one importer said PET resin accounted for 40-60 percent of the cost.[13] For rolls of PET sheet, three producers and two importers said PET resin accounted for 50-80 percent of the cost, although most said the range was 70-80 percent. For PET strapping, three producers and one importer said PET resin accounted for 60-80 percent of the cost, while one importer (***) estimated the PET resin cost share at 15 percent.

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[10] Conference transcript, p. 111 (Ream).

[11] Conference transcript, p. 111 (Ream) and p. 121 (Safieddin). Two respondents, Graham Packaging and Niagara Bottling, purchase domestically produced PET resin.

[12] *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman*, Investigations Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final), Publication 4604, April 2016, p. II-11; conference transcript p. 56 (Cullen), p. 66 (Paramasivam).

[13] One importer (***) said that PET resin accounted for 15 percent of the cost of the carpet.

Business cycles

One of four U.S. producers and 8 of 15 importers indicated that the U.S. PET resin market was subject to business cycles or conditions of competition. One producer and four importers said there is higher PET resin demand during the warm season because of higher demand for bottled beverages, while one importer said demand was lower in the winter because of the decline in beverage consumption.

Moreover, four importers indicated that the PET resin market has distinctive conditions of competition. *** reported that M&G recently announced the cessation of production activities at a number of its production plants due to financial difficulties. This cessation caused significant supply shortages and an increased demand for imports. *** also indicated that domestic supply was tight, and added that recent antidumping duties on imports from China, India, Canada, and Oman had affected U.S. market supply.[14] *** noted that the entire PET hot-fill segment is not subject to competition from imports due to exacting quality requirements. In addition, *** said that purchases of imported PET are limited in the interior United States (further than 300 miles from a U.S. port) due to high logistics costs, and that these costs have been recently exacerbated by a tightening of the U.S. trucking market following Hurricane Harvey's adverse impact on rail lines around Houston.

When asked if there had been any changes to the business cycles or conditions of competition for PET resin since January 1, 2014, one producer and five importers stated that there had. Producer *** and importer *** reported that there has been a substantial increase in the capacity of overseas producers, which has increased the surplus capacity in those markets. This surplus capacity, in turn, has been targeted towards the United States. Importer *** noted that domestic supply was tight, whereas three importers (***) noted that antidumping duties had affected U.S. market supply. *** also mentioned that NAFTA producer consolidation (DAK bought Selenis of Canada) has changed the conditions of competition.

DAK said that the competitive conditions present in the Commission's prior related PET resin investigations "largely remain true today" and listed them as follows: the high degree of substitutability of PET resin between domestic and foreign sources; the capital intensive nature of production and the need to maintain high operating rates; and the increasing shift of purchasers, particularly large purchasers, towards directly importing PET resin rather than sourcing the product through a middle man importer.[15] When asked if geographic location or distance is a condition of competition particularly in terms of servicing the West Coast, M&G responded that being closer to the West Coast was one of the reasons it chose Texas as the location for its new plant.[16]

The respondents, on the other hand, indicated that the conditions of competition had changed since the last investigation and listed the recent changes as follows. First, they testified that U.S. producers and their affiliates own 100 percent of Mexican capacity and unlike in the

[14] Questionnaire responses, as well as Niagara Postconference Brief, pp. 12-14, 16, and Exhibit A.
[15] Conference transcript, pp. 36–38 (Cullen).
[16] Conference transcript, p. 98 (Fournier).

past case, petitioners imported increasing amounts of Mexican PET resin to serve U.S. customers.[17] Also, they argued that three out of the four producers are now vertically integrated, which can have implications for raw material prices and the profitability of the vertically integrated companies.[18] A third new condition of competition argued by the respondents is that growing demand is "massively outstripping domestic supply," which has caused domestic PET resin shortages.[19] Respondents further argued that competition among domestic PET resin producers has intensified in recent years, caused by the anticipated opening of M&G's Texas plant.[20]

Demand trends

Almost all firms reported an increase in U.S. demand for PET resin since January 1, 2014 (table II-4). DAK testified that there has been good growth across almost all the end-use segments except for carbonated soft drink bottles because of consumers' desire to consume fewer calories.[21] Respondents further stated that the water bottle end-use segment has grown the most.[22]

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

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand inside the United States: Overall demand				
U.S. producers	4	---	---	---
Importers	12	1	---	---
Demand inside the United States: Bottling applications				
U.S. producers	4	---	---	---
Importers	9	1	---	---
Demand inside the United States: Other applications				
U.S. producers	3	---	---	---
Importers	9	1	---	---
Demand outside the United States:				
U.S. producers	4	---	---	---
Importers	10	1	---	---

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

[17] Conference transcript, pp. 19, 146 (Esserman).

[18] DAK and Indorama are vertically integrated. M&G will be vertically integrated when its Corpus Christi plant opens. Conference transcript, pp. 19, 147 (Esserman), pp. 117, 118 (Safieddin).

[19] Conference transcript, pp. 18, 147 (Esserman). Also see Part V of this report.

[20] Conference transcript, pp. 134, 147 (Safieddin); Niagara Postconference Brief, p. 20.

[21] Conference transcript, pp. 39, 75 (Cullen).

[22] Conference transcript, p. 144 (Safieddin and Ream).

Substitute products

Substitutes for PET resin are limited. All four U.S. producers and 10 of 14 importers reported that there were no substitutes. Four importers indicated there were substitutes and listed the substitutes as follows. *** listed glass and aluminum used in bottles and cans, respectively, as well as other polymers used in bottles and containers as substitutes, but added that none of those products had seen price changes that affected the price of PET resin. *** named glass and aluminum used in consumer product containers as substitutes, and said that "quality, price and longstanding customer preferences for substitutes all affect the price of PET resin." *** also reported that recycled PET was a substitute, but that changes in its price did not affect the price for PET resin. *** noted that polypropylene and polystyrene for use in sheet/thermoforming are substitutes, but that polypropylene does not have the stiffness of PET, and polystyrene use is declining. *** named HDPE as a substitute for 1 gallon bottles, although it is no longer a competitive substitute because the price has increased over the years.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported PET resin depends upon such factors as relative prices, quality, 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 high degree of substitutability between domestically produced PET resin and PET resin imported from subject sources.

Lead times

PET resin is primarily sold from inventory. U.S. producers reported that 80 percent of their sales came from inventories, with lead times averaging 13 days. The bulk of the remaining sales were produced-to-order, with lead times averaging 20 days.

Importers reported that 47 percent of their commercial shipments came from U.S. inventories with lead times averaging 14 days, while 40 percent of their commercial shipments came from foreign inventories, with lead times averaging 35 days. The remaining 12 percent of their commercial shipments were produced-to-order, with lead times averaging 55 days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[23] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for PET resin. The major purchasing factors identified by firms include price, quality, availability, and service and reliability (table II-5). Quality was cited the most by purchasers as the most important factor affecting purchasing decisions. Price was the most frequently cited second and third most

[23] This information is compiled from responses by purchasers identified by Petitioners to the lost sales lost revenue allegations. See Part V for additional information.

important factor. Other factors cited include the ability to meet customer specifications, long-term relationships, resin characteristics and additives, and the geographic strategy to buy some resin away from hurricane zones.

Table II-5
PET resin: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factors

Factor	First	Second	Third	Total
Price	2	4	5	11
Quality	7	3	1	11
Availability	2	2	2	6
Service and reliability	0	3	4	7
Other	3	1	1	5

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

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

In order to determine whether U.S.-produced PET resin can generally be used in the same applications as imports from Brazil, Indonesia, Korea, Pakistan, and Taiwan, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-6, all U.S. producers and most importers found PET resin from all sources to be “always” interchangeable.

Table II-6
PET resin: Interchangeability between PET resin 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. Brazil	4	0	0	0	6	0	3	0
U.S. vs. Indonesia	4	0	0	0	8	0	1	0
U.S. vs. Korea	4	0	0	0	9	0	3	0
U.S. vs. Pakistan	4	0	0	0	9	0	2	0
U.S. vs. Taiwan	4	0	0	0	8	1	4	0
Subject countries comparisons: Brazil vs. Indonesia	4	0	0	0	6	0	1	0
Brazil vs. Korea	4	0	0	0	6	0	2	0
Brazil vs. Pakistan	4	0	0	0	6	0	2	0
Brazil vs. Taiwan	4	0	0	0	6	0	3	0
Indonesia vs. Korea	4	0	0	0	7	0	1	0
Indonesia vs. Pakistan	4	0	0	0	7	0	1	0
Indonesia vs. Taiwan	4	0	0	0	7	0	2	0
Korea vs. Pakistan	4	0	0	0	7	0	2	0
Korea vs. Taiwan	4	0	0	0	7	0	4	0
Pakistan vs. Taiwan	4	0	0	0	7	0	3	0
Nonsubject countries comparisons: U.S. vs. Canada	4	0	0	0	9	1	1	0
U.S. vs. Mexico	4	0	0	0	7	1	1	0
U.S. vs. other	4	0	0	0	6	0	4	0
Brazil vs. Canada	4	0	0	0	6	1	1	0
Brazil vs. Mexico	4	0	0	0	6	1	1	0
Brazil vs. other	4	0	0	0	6	0	3	0
Indonesia vs. Canada	4	0	0	0	7	0	1	0
Indonesia vs. Mexico	4	0	0	0	6	0	1	0
Indonesia vs. other	4	0	0	0	6	0	2	0
Korea vs. Canada	4	0	0	0	7	1	1	0
Korea vs. Mexico	4	0	0	0	6	1	1	0
Korea vs. other	4	0	0	0	6	0	4	0
Pakistan vs. Canada	4	0	0	0	7	1	1	0
Pakistan vs. Mexico	4	0	0	0	6	1	1	0
Pakistan vs. other	4	0	0	0	6	0	3	0
Taiwan vs. Canada	4	0	0	0	7	1	1	0
Taiwan vs. Mexico	4	0	0	0	6	1	1	0
Taiwan vs. other	4	0	0	0	6	0	4	0
Canada vs. Mexico	4	0	0	0	6	1	1	0
Canada vs. other	4	0	0	0	6	0	3	0
Mexico vs. other	4	0	0	0	6	0	3	0

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

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

*** indicated for all pairs of countries that PET resin was only sometimes interchangeable with that sourced from other countries. According to ***, interchangeability of U.S. PET resin and PET resin from other countries depends on whether suppliers in each country

can offer various grades of PET resin for different applications. *** reported that end-user specification is a factor in a high percent of the custom bottle business and added that in the beverage business, only select imported grades have brand owner approvals (Coke, Pepsi, Nestle, etc). *** also noted that no imports are used in the hot-fill segment due to liability and technical concerns that imported products cannot satisfy. *** reported that some PET resin cannot be used interchangeably because of customer preferences about materials and service.

In addition, producers and importers were asked to assess how often differences other than price were significant in sales of PET resin from the United States, subject, or nonsubject countries. As seen in table II-7, all producers and most importers reported that factors other than price were never a significant factor in their firms' sales of PET resin. Importer *** indicated that while price is the main factor when quality is identical, customers also take into consideration the level of customer service, e.g., delivery mode of either bag or bulk, and on time deliveries direct to their location (instead of pick up by customer). Secondly, customers also take into account the business relationship and level of comfort developed over time with the supplier. *** reported that logistics is a major factor in deciding whether a firm can use imported PET resin or not. According to ***, bulk availability of imported PET resin is limited to consumers within 300 miles of a major U.S. port. It added that imports sold to the interior of the United States are always in truckload package quantities, but the vast majority of large PET resin users will not accept PET resin in truckload packages.

Table II-7
PET resin: Perceived importance of factors other than price between PET resin 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. Brazil	0	0	0	4	0	1	1	5
U.S. vs. Indonesia	0	0	0	4	0	0	0	5
U.S. vs. Korea	0	0	0	4	0	2	0	6
U.S. vs. Pakistan	0	0	0	4	0	2	0	5
U.S. vs. Taiwan	0	0	0	4	1	2	2	4
Subject countries comparisons: Brazil vs. Indonesia	0	0	0	4	0	0	0	5
Brazil vs. Korea	0	0	0	4	0	1	0	5
Brazil vs. Pakistan	0	0	0	4	0	1	0	5
Brazil vs. Taiwan	0	0	0	4	0	1	2	4
Indonesia vs. Korea	0	0	0	4	0	0	0	5
Indonesia vs. Pakistan	0	0	0	4	0	0	0	5
Indonesia vs. Taiwan	0	0	0	4	0	0	1	5
Korea vs. Pakistan	0	0	0	4	0	1	0	5
Korea vs. Taiwan	0	0	0	4	0	1	2	5
Pakistan vs. Taiwan	0	0	0	4	0	1	1	5
Nonsubject countries comparisons: U.S. vs. Canada	0	0	0	4	0	0	2	5
U.S. vs. Mexico	0	0	0	4	0	0	2	4
U.S. vs. other	0	0	0	4	0	2	1	5
Brazil vs. Canada	0	0	0	4	0	0	1	5
Brazil vs. Mexico	0	0	0	4	0	0	2	4
Brazil vs. other	0	0	0	4	0	1	1	5
Indonesia vs. Canada	0	0	0	4	0	0	1	5
Indonesia vs. Mexico	0	0	0	4	0	0	0	5
Indonesia vs. other	0	0	0	4	0	0	1	5
Korea vs. Canada	0	0	0	4	0	0	1	5
Korea vs. Mexico	0	0	0	4	0	0	1	5
Korea vs. other	0	0	0	4	0	1	2	5
Pakistan vs. Canada	0	0	0	4	0	0	1	5
Pakistan vs. Mexico	0	0	0	4	0	0	1	5
Pakistan vs. other	0	0	0	4	0	1	1	5
Taiwan vs. Canada	0	0	0	4	0	0	1	5
Taiwan vs. Mexico	0	0	0	4	0	0	1	5
Taiwan vs. other	0	0	0	4	0	2	1	5
Canada vs. Mexico	0	0	0	4	0	0	1	5
Canada vs. other	0	0	0	4	0	1	1	5
Mexico vs. other	0	0	0	4	0	1	1	5

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 four firms that accounted for all known U.S. production of PET resin during 2016.[1]

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to four firms based on information contained in the petitions. All four firms provided usable data on their production operations. Staff believes that these responses represent all known U.S. production of PET resin. Table III-1 lists U.S. producers of PET resin, their production locations, positions on the petitions, and shares of total production.

Table III-1
PET resin: U.S. producers, their positions on the petitions, production locations, and shares of reported production, 2016

Firm	Position on petitions	Production location(s)	Share of production (percent)
DAK	Support	Charlotte, NC Fayetteville, NC Gaston, SC Moncks Corner, SC Bay St. Louis, MS	***
Indorama	Mixed/Partial[1]	Asheboro, NC Decatur, AL Spartanburg, SC	***
M&G	***[2]	Apple Grove, WV	***
Nan Ya	Support	Lake City, SC	***
Total			***

[1] Indorama supports the petition with regards to Brazil, Korea, Pakistan, and Taiwan but does not take a position on the petition with regards to Indonesia.
[2] ***.

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

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

[1] For discussion of data coverage, please refer to Part I, "Summary Data and Data Sources."

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms, and share of total production of PET resin. *** are related to foreign producers in Taiwan, Indonesia, and Brazil, respectively. *** is wholly owned by ***. *** is affiliated with *** through common ownership by ***. *** is affiliated with *** and *** through common ownership by ***.[2] In addition, as discussed in greater detail below, *** directly import the subject merchandise. *** also purchases the subject merchandise from U.S. importers. *** imported PET resin from nonsubject sources. All four U.S. producers are also affiliated with foreign producers of PET resin in nonsubject countries.

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

* * * * * * *

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2014.

Table III-3
PET resin: U.S. producers' reported changes in operations, since January 1, 2014

* * * * * * *

In December 2014, M&G began construction of a PET resin plant in Corpus Christi, Texas. The PET plant is expected to have a nominal production capacity of 1.1 million tons per year and the plant for integrated PTA is expected to have a nominal production capacity of 1.3 million tons per year.[3] The project was upgraded in January 2016 to increase nominal and expected production capacity by over 100,000 MT.[4] It was expected to be completed by the end of 2016, but is facing an indefinite delay due to financial issues. Liens with more than $100 million in claims have been filed against M&G concerning this project.[5] These claims include a $53 million lien from Integrity Mechanical Specialists ("IMS") and a $25 million lien filed by WFS Construction.[6] M&G ***. It noted that in addition to the $1 billion it has already invested into the Corpus Christi project, another multiple hundreds of millions of dollars will be needed to complete the facility.[7] ***.[8] ***.

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[2] Petitioner's postconference brief, p. 41.

[3] *M&G's webpage,* http://www.mgcorpuschristi.com/en/corpus-christi/the-projects, accessed October 23, 2017.

[4] Ibid.

[5] Petitioner's postconference brief, p. 4; *Corpus Christ 'Jumbo Project' $100 million headache for U.S., Texas Companies*, http://www.mysanantonio.com/business/local/article/Corpus-Christi-Jumbo-Project-100-million-11072149.php, accessed October 12, 2017.

[6] *Alpek Cutting off M&G Over Unpaid Bills*, https://cen.acs.org/articles/95/web/2017/09/Alpek-cutting-off-MG-over.html, accessed October 13, 2017.

[7] Conference transcript, p. 35 (Fournier).

In September 2017, M&G announced an imminent idling of all PET resin production at its Apple Grove, West Virginia facility due to the company's inability to pay its raw material suppliers.[9] It also issued a WARN notice to its employees that the Apple Grove plant may be permanently closed. The permanent shutdown of this facility could be completed by November 21, 2017 without access to additional funding and liquidity.[10] On October 24, 2017, M&G filed for Chapter 11 bankruptcy production, listing liabilities between $100 million and $500 million.[11] One week earlier, M&G's parent company, M&G Group, filed an application of "concordato prevento", which is a form of bankruptcy protection under Italian law.[12] Indorama reported ***. On August 1, 2016, DAK announced that it acquired a controlling interest in Selenis Canada from the IMG Group, which is based in Portugal.[13]

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. The data indicates that production capacity was relatively stable during the period of investigation while production increased. Between 2014 and 2016, U.S. producers' production capacity grew by 0.7 percent from 6.5 billion pounds to 6.6 billion pounds. *** and *** reported increases in their production capacity; the majority of which occurred from 2014 to 2015. Nan Ya ***.[14] The growth in *** capacity was ***. *** production capacity, on the other hand, *** during 2014-16. Production capacity was *** in January-June 2016 and January-June 2017 for all U.S. producers.

(…*continued*)

[8] Petitioner's postconference brief, answers to staff questions, p. 4.

[9] Conference transcript, p. 33 (Fournier); petitioner's postconference brief, p. 32; *M&G Announces Ceasing Production Activities*, http://www.mydailytribune.com/news/18952/mg-announces-ceasing-production-activities, accessed October 13, 2017.

[10] *Mossi Ghisolfi Money Woes Affecting Americas Petrochemical Operations*, https://www.platts.com/latest-news/petrochemicals/houston/mossi-ghisolfi-money-woes-affecting-americas-21287475, accessed October 24, 2017.

[11] *M&GPolymers USA Files for Chapter 11 Protection,* http://www.plasticsnews.com/article/20171025/NEWS/171029941/mg-polymers-usa-files-for-chapter-11-protection, accessed October 27, 2017.

[12] *M&G Polymers USA Files for Chapter 11 Protection,* http://www.plasticsnews.com/article/20171025/NEWS/171029941/mg-polymers-usa-files-for-chapter-11-protection, accessed October 27, 2017.

[13] DAK Americas press release, August 1, 2016. https://davispet.ca/files/258197/dak-selenis-canada-release-eng-7-25-16-final.pdf, accessed October 24, 2017.

[14] *** email to USITC staff, October 13, 2017.

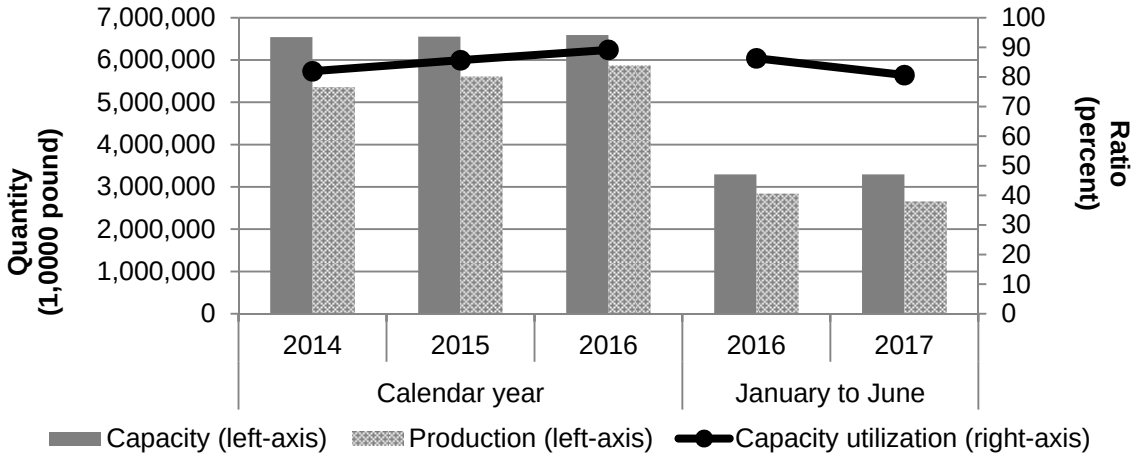
Table III-4
PET resin: U.S. producers' capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Capacity (1,000 pounds)				
DAK	***	***	***	***	***
Indorama	***	***	***	***	***
M&G	***	***	***	***	***
Nan Ya	***	***	***	***	***
Total capacity	6,541,065	6,550,082	6,587,961	3,293,980	3,293,980
	Production (1,000 pounds)				
DAK	***	***	***	***	***
Indorama	***	***	***	***	***
M&G	***	***	***	***	***
Nan Ya	***	***	***	***	***
Total production	5,357,910	5,609,164	5,871,344	2,842,018	2,655,086
	Capacity utilization (percent)				
DAK	***	***	***	***	***
Indorama	***	***	***	***	***
M&G	***	***	***	***	***
Nan Ya	***	***	***	***	***
Average capacity utilization	81.9	85.6	89.1	86.3	80.6

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

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

Figure III-1
PET resin: U.S. producers' capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017



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

U.S. producers' production increased from 5.4 billion pounds in 2014 to 5.9 billion pounds in 2016, equivalent to a 9.6 percent increase. All four producers reported increases in production during 2014-16 with *** and *** collectively accounting for *** percent of the total increase. However, U.S. producers' production was 6.6 percent lower in January-June 2017 than in January-June 2016. Three out of four producers reported lower production in January-June 2017 than in January-June 2016 with *** accounting for *** percent of the total decrease. In 2016, hot filled resin accounted for *** percent of *** PET resin production.[15]

U.S. producers' capacity utilization increased from 81.9 percent in 2014 to 89.1 percent in 2016. Nan Ya ***. DAK Americas ***. Indorama ***. M&G's ***.

Alternative products

As shown in table III-5, responding U.S. producers produced other products on the same equipment and machinery used to produce PET resin. U.S. producers' overall production capacity grew from 7.2 billion pounds in 2014 to 7.3 billion pounds in 2016, equivalent to a 1.3 percent increase. This growth can be attributed to ***, which accounted for *** percent of the overall increase. Total production capacity was the same in January-June 2016 and January-June 2017 for all producers. In 2016, subject PET resin accounted for over *** percent of the combined production for the four U.S. producers (*** for Indorama, Nan Ya, DAK, and M&G, respectively). Two U.S. producers, *** and ***, produce nonsubject PET resin using the same equipment and machinery in the production of subject PET resin. These nonsubject products include ***.

[15] *** did not provide an estimate of the percentage of total PET resin production that is accounted for by hot-filled resin production.

Table III-5
PET resin: U.S. producers' overall capacity and production on the same equipment as subject production, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Quantity (1,000 pounds)				
Overall capacity	7,208,231	7,300,231	7,302,436	3,651,217	3,651,217
Production: PET resin	5,357,910	5,609,164	5,871,344	2,842,018	2,655,086
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***
	Ratios and shares (percent)				
Overall capacity utilization	***	***	***	***	***
Share of production: PET resin	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	100.0	100.0	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: Compiled from data submitted in response to Commission questionnaires.

M&G noted that ***. Indorama stated that ***.

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. There was no internal consumption or transfers to related firms during the period of investigation. From 2014 to 2016, U.S. shipments accounted for the vast majority of U.S. producers' total shipments, by quantity, ranging from *** percent to *** percent. It accounted for *** percent and *** percent of total shipments in January-June 2016 and January-June 2017, respectively. U.S. shipments increased from 5.1 billion pounds in 2014 to 5.5 billion pounds in 2016, equivalent to a 6.6 percent increase. All U.S. producers experienced an increase in U.S. shipments during 2014-16 with *** and *** accounting for *** percent of the total increase. U.S. shipments were 2.5 percent lower in January-June 2017 than in January-June 2016. The trend for U.S. producers' U.S. shipments between January-June 2016 and January-June 2017, however, was mixed with two producers *** reporting decreases in their U.S. shipments while *** reported increases.

Table III-6
PET resin: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Quantity (1,000 pounds)				
U.S. shipments	5,126,103	5,369,453	5,462,433	2,749,054	2,680,184
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	3,616,987	3,141,521	2,816,592	1,413,032	1,409,671
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per pound)				
U.S. shipments	0.71	0.59	0.52	0.51	0.53
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	100.0	100.0	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: Compiled from data submitted in response to Commission questionnaires.

Although the volume of U.S. producer's U.S. shipments increased, the value of those shipments decreased by 22.1 percent between 2014 and 2016 from $3.6 billion to $2.8 billion. The value of each U.S. producer's U.S. shipments fell consistently in each calendar year with *** and *** experiencing the largest declines. It was mostly stable in January-June 2016 and January-June 2017. The decrease in the value of *** U.S. shipments from January-June 2016 to January-June 2017 was offset by a near equivalent increase in the value of *** U.S. shipments.

The average unit value of U.S. producers' U.S. shipments, consequently, fell from $0.71 per pound in 2014 to $0.52 per pound in 2016, though it increased to $0.53 per pound in January-June 2017. Average unit values fell consistently for every U.S. producer in each calendar year, but increased for *** from January-June 2016 to January-June 2017.

Export shipments accounted for *** percent of total U.S. producers' U.S. shipments from 2014 to 2016. All U.S. producers reported export shipments throughout 2014-16, as well as in January-June 2017. Export destinations include Canada, Colombia, Mexico, Argentina, and Venezuela. Export shipments fluctuated year to year, decreasing from *** pounds in 2014 to *** pounds in 2015 and then increasing to *** pounds in 2016 for an overall increase of ***

percent. *** export shipments increased by *** percent from 2014 to 2016 while *** export shipments, conversely, fell by *** percent over the same period. *** and *** export shipments were *** during 2014-16. The trend for export shipments in January-June 2016 when compared to January-June 2017 was mixed, with two producers *** reporting increases and two producers (***) reporting decreases. The average unit value of export shipments fell from $*** per pound in 2014 to $*** per pound in 2016, equivalent to a *** percent decrease. It was *** percent higher in January-June 2017 than in January-June 2016. The average unit value of export shipments was lower than the average unit value of U.S. shipments in all periods examined.

U.S. PRODUCERS' INVENTORIES

Table III-7 presents U.S. producers' end-of-period inventories and the ratio of those inventories to U.S. producers' production, U.S. shipments, and total shipments. During 2014-16, U.S. producers' end-of-period inventories increased by *** percent from *** pounds to *** pounds. Three out of four producers reported higher end-of-period inventories in 2016 than in 2014 with *** accounting for *** the increase. Consequently, *** held *** percent of total end-of-period inventories in 2016. The ratios of U.S. producers' inventories to U.S. production and to U.S. shipments were higher by *** percentage points and *** percentage points, respectively, in 2016 than in 2014. End-of-period inventories were *** percent lower in January-June 2017 than in January-June 2016. The ratio of U.S. producers' inventories to U.S. production was greater in January-June 2017 than in January-June 2016 while the ratio of inventories to U.S. shipments was the same in both periods.

Table III-7
PET resin: U.S. producers' inventories, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports and purchases of PET resin are presented in table III-8. Two producers, ***, imported PET resin from subject sources and two producers, ***, imported PET resin from nonsubject sources. ***. The ratio of those imports to U.S. production was *** in 2014 and *** percent in 2016. It peaked at *** percent in January-June 2017. *** imported PET resin ***. The ratio of *** imports from Brazil to U.S. production ranged from a low of *** percent in 2015 to a high of *** percent in 2016. The ratio of *** imports from Mexico to U.S. production ranged from a low of *** percent in 2014 to a high of *** percent in 2016. *** continued to import PET resin from Brazil in January-June 2017 with the ratio of those imports to U.S. production reaching a peak of *** percent. *** also continued to import PET resin from Mexico in January-June 2017 with an import to U.S. production ratio of *** percent.

Table III-8
PET resin: U.S. producers' imports, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

Indorama noted that ***. It also imports PET resin from Indonesia because it lacks the capability to produce bio-PET in the United States.[16] M&G stated that the decision to import PET resin from Mexico or sell it from its U.S. facilities is determined by capacity availability.[17] Since production capacity at Apple Grove is small by present standards, M&G relies on imports of PET resin from Mexico in order to participate as a prominent supplier of the U.S. market. M&G noted that completion of the Corpus Christi facility would enable it to establish a larger footprint in the U.S. market as a producer and to reduce its imports from Mexico.[18]

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-9 shows U.S. producers' employment-related data from 2014 to June 2017. During 2014-16, the number of production related workers ("PRWs") decreased by 10.4 percent from 989 to 886, but was 1.8 percent higher in January-June 2017 than in January-June 2016. *** reported declines in PRWs between 2014 and 2016 while *** experienced a small increase over the same period. Nan Ya *** from 2014 to 2016. Productivity grew during 2014-16, but was lower in January-June 2017 compared to January-June 2016. U.S. producers' unit labor costs decreased by 14.6 percent from 2014 to 2016. It was 6.3 percent lower in January-June 2017 than in January-June 2016.

Table III-9
PET resin: U.S. producers' employment related data, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
Production and related workers (PRWs) (number)	989	889	886	875	891
Total hours worked (1,000 hours)	2,183	1,865	1,959	987	1,011
Hours worked per PRW (hours)	2,207	2,098	2,211	1,128	1,135
Wages paid ($1,000)	73,373	70,798	68,629	37,478	32,819
Hourly wages (dollars per hour)	$33.61	$37.96	$35.03	$37.97	$32.46
Productivity (pounds per hour)	2,454.4	3,007.6	2,997.1	2,879.5	2,626.2
Unit labor costs (dollars per 1,000 pounds)	$13.69	$12.62	$11.69	$13.19	$12.36

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

[16] Petitioners' postconference brief, answers to staff questions, p. 11.
[17] Conference transcript, p. 46 (Fournier).
[18] Ibid.

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 27 firms believed to be possible importers of PET resin, as well as to all U.S. producers of PET Resin.[1] Usable questionnaire responses were received from 17 companies, representing approximately *** percent of U.S. imports from Brazil, *** percent of U.S. imports from Indonesia,[2] *** percent of U.S. imports from Korea,[3] *** percent of U.S. imports from Pakistan, and *** percent of imports from Taiwan in 2016 under HTS statistical reporting numbers 3907.60.0030, 3907.61.0000, and 3907.69.0000. Eight firms[4] indicated that they had not imported PET resin into the United States since January 1, 2014. Table IV-1 lists all responding U.S. importers of PET resin from Brazil, Indonesia, Korea, Pakistan, Taiwan, and other sources, their locations, and their shares of U.S. imports, in 2016.

[1] The Commission issued questionnaires to those firms identified in the petitions, along with firms that, based on a review of data provided by ***, may have accounted for more than one percent of total imports under HTS statistical reporting numbers 3907.60.0030, 3907.61.0000, and 3907.69.0000. As discussed in part I, merchandise subject to investigation was imported under HTS statistical number 3907.60.0030 during 2014-16. Effective January 1, 2017, the HTS statistical number changed to 3907.61.0000 and 3907.69.0000 at the request of the European Union to the World Customs Organization.

[2] ***, a key U.S. importer of PET resin from Indonesia, did not provide a questionnaire response despite repeated requests from USITC staff.

[3] ***, a key U.S. importer of PET resin from Korea, was unable to provide a questionnaire response because of ***.

[4] These firms are: ***.

Table IV-1
PET resin: U.S. importers, their headquarters, and share of total imports by source, 2016

Firm	Headquarters	Share of imports by source (percent)					
		Brazil	Indonesia	Korea	Pakistan	Taiwan	Subject Sources
Amcor	Ann Arbor, MI	***	***	***	***	***	***
CG Roxane	Olancha, CA	***	***	***	***	***	***
DAK	Charlotte, NC	***	***	***	***	***	***
DL Trading	Katy, TX	***	***	***	***	***	***
Freudenberg	Durham, NC	***	***	***	***	***	***
G-Pac	Atlanta, GA	***	***	***	***	***	***
Indorama	Riverwoods, IL	***	***	***	***	***	***
iResin LLC	Newark, NJ	***	***	***	***	***	***
M&G	Houston, TX	***	***	***	***	***	***
Niagara	Ontario, CA	***	***	***	***	***	***
Pacific Rim	San Francisco, CA	***	***	***	***	***	***
Plastipak	Plymouth, MI	***	***	***	***	***	***
POSCO Daewoo	Anaheim, CA	***	***	***	***	***	***
Ravago	Orlando, FL	***	***	***	***	***	***
Selenis	Montreal, Quebec, Canada, CN	***	***	***	***	***	***
VPET	Fontana, CA	***	***	***	***	***	***
Worldwide Polychem	Hong Kong	***	***	***	***	***	***
Other firms		***	***	***	***	***	***
Total		100.0	100.0	100.0	100.0	100.0	100.0

Table continued on the next page.

Table IV-1--Continued
PET resin: U.S. importers, their headquarters, and share of total imports by source, 2016

Firm	Share of imports by source (percent)				
	Canada	Mexico	All other sources	Nonsubject sources	All import sources
Amcor	***	***	***	***	***
CG Roxane	***	***	***	***	***
DAK	***	***	***	***	***
DL Trading	***	***	***	***	***
Freudenberg	***	***	***	***	***
G-Pac	***	***	***	***	***
Indorama	***	***	***	***	***
iResin LLC	***	***	***	***	***
M&G	***	***	***	***	***
Niagara	***	***	***	***	***
Pacific Rim	***	***	***	***	***
Plastipak	***	***	***	***	***
POSCO Daewoo	***	***	***	***	***
Ravago	***	***	***	***	***
Selenis	***	***	***	***	***
VPET	***	***	***	***	***
Worldwide Polychem	***	***	***	***	***
Other firms	***	***	***	***	***
Total	100.0	100.0	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: Compiled from data submitted in response to Commission questionnaires.

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of PET resin from Brazil, Indonesia, Korea, Pakistan, Taiwan, and all other sources. U.S. import data are based on questionnaire responses and are supplemented with data from ***.[5] From 2014 to 2016, U.S. imports from subject countries, by volume, increased by *** percent from *** pounds to *** pounds. U.S. imports from Brazil and Taiwan experienced the largest increase, in absolute terms, among the subject countries, ending *** pounds and *** pounds higher, respectively, in 2016 than in 2014. Nearly all the increase of U.S. imports from Brazil can be attributed to the three largest U.S. importers, ***, ***, and ***, with the majority of the increase occurring from

[5] Counsel for petitioners noted that ***. *** Email to USITC staff, October 17, 2017. To address gaps in the data created by *** and by missing questionnaire responses from key U.S. importers ***, data submitted in response to U.S. importers' questionnaires is supplemented with ***. Official U.S. import statistics are presented in appendix D.

2015 to 2016. According to ***, two other U.S. importers, *** also imported PET resin from Brazil. The growth of U.S. imports from Taiwan can be attributed to ***. Seven other U.S. importers, ***, imported PET resin from Taiwan. U.S. imports from Brazil and Taiwan were *** percent and *** percent higher, respectively, in January-June 2017 than in January-June 2016. U.S. imports from Indonesia, Korea, and Pakistan also grew during 2014-16, but combined, were less than U.S. imports from Brazil in 2016.

Table IV-2
PET resin: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

Figure IV-1
PET resin: U.S. import volumes and prices, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

The leading nonsubject sources of U.S. imports were Mexico and Canada. Mexico accounted from *** percent to *** percent of total U.S. imports, by quantity, during 2014-16 while Canada accounted from *** percent to *** percent. U.S. imports from Mexico grew from *** pounds in 2014 to *** pounds in 2016, equivalent to a *** percent increase. This growth can be attributed to ***, which accounted for at least *** percent of all U.S. imports from Mexico in each year during 2014-16. U.S. imports from Mexico were *** percent greater in January-June 2017 than in January-June 2016. Conversely, U.S. imports from Canada fell by *** percent from *** pounds in 2014 to *** pounds in 2016. This decrease was mostly accounted for by ***. U.S. imports from Canada were *** percent lower in January-June 2017 than in January-June 2016.

The average unit value of U.S. imports of PET resin from subject countries fell from $*** per pound in 2014 to $*** per pound in 2016, equivalent to a *** percent decrease. Average unit values of U.S. imports from Indonesia, Korea, Pakistan, and Taiwan fell in each calendar year during 2014-16, ending *** percent, *** percent, *** percent, and *** percent lower, respectively, in 2016 than in 2014. The average unit value of U.S. imports from Brazil fluctuated year to year, declining by *** percent from 2014 to 2015 and then increasing by *** percent in 2016, ending *** percent lower in 2016 than in 2014. However, the average unit values of U.S. imports from each subject country were higher in January-June 2017 than in January-June 2016.

The average unit value of U.S. imports from Mexico fell throughout 2014-16 from $*** per pound to $*** per pound, but increased to $*** per pound in January-June 2017. It was higher than the average values of U.S. imports from all subject countries, except for Indonesia, in 2014, 2015, and 2016. It was higher than the average value of U.S. imports from all subject countries in January-June 2017. Average unit values of U.S. imports from Canada decreased from $*** per pound in 2014 to $*** per pound in 2016 but increased to $*** per pound in January-June 2017. The average unit values of U.S. imports from Canada were higher than the average unit values of U.S. imports from Brazil, Korea, Pakistan, and Taiwan in each calendar year. However, it was lower than the average unit value of U.S. imports from Brazil and Mexico

in January-June 2017. The average unit value of U.S imports from Canada was higher than the average unit value of U.S imports from Indonesia in 2014 and 2015, but was equal in 2016 and January-June 2017.

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[6] Negligible imports are generally defined in the Tariff Act of 1930, 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] From September 2016 to August 2017, the most recent 12-month period preceding these investigations, imports from each subject country accounted for more than 3 percent of total U.S. imports of PET resin and the imports from those countries collectively accounted for more than 7 percent of the volume of all such merchandise imported into the United States. According to questionnaire data responses, imports from Brazil accounted for *** percent; imports from Indonesia accounted for *** percent; imports from Korea accounted for *** percent; imports from Pakistan accounted for *** percent; and imports from Taiwan accounted for *** percent. According to official U.S. import statistics, imports from Brazil accounted for 12.2 percent of total U.S. imports; imports from Indonesia accounted for 4.9 percent; imports from Korea accounted for 8.1 percent, imports from Pakistan accounted for 7.3 percent; and imports from Taiwan accounted for 15.2 percent. Table IV-3 presents the individual shares of total imports accounted by subject countries by quantity during September 2016-August 2017 based on questionnaire data and official U.S. import statistics.

[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)).

Table IV-3
PET resin: U.S. imports in the twelve months preceding the filing of the petitions, by source, September 2016 through August 2017

Item	September 2016 through August 2017			
	Questionnaire data		Official statistics	
	Quantity (1,000 pounds)	Share of quantity (percent)	Quantity (1,000 pounds)	Share of quantity (percent)
U.S. imports from.--				
Brazil	***	***	239,938	12.2
Indonesia	***	***	96,268	4.9
Korea	***	***	158,551	8.1
Pakistan	***	***	142,633	7.3
Taiwan	***	***	299,289	15.2
Subject sources	***	***	936,678	47.7
Canada	***	***	219,109	11.1
Mexico	***	***	642,818	32.7
All other sources	***	***	166,775	8.5
Nonsubject sources	***	***	1,028,702	52.3
All import sources	***	***	1,965,381	100.0

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

Source: Compiled from official import statistics and from data submitted in response to Commission questionnaires and supplemented with data from ***, accessed October 17, 2017.

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

PET resin produced in the United States is shipped nationwide.[8] In 2016, the official U.S. import statistics show that a majority of subject imports from Brazil and Pakistan entered through U.S. ports located in the eastern coast. Such imports accounted for 77.3 percent and 93.4 percent of total subject imports from each country, respectively. The majority of subject imports from Indonesia, Korea, and Taiwan entered through U.S. ports located in the western coast. Such imports accounted for 98.8 percent, 94.3 percent, and 82.1 percent of total subject imports from each country, respectively. Most imports from nonsubject sources entered

[8] See Part II for additional information on geographic markets.

through U.S. ports in the southern border (61.2 percent). Table IV-4 presents U.S. import quantities of PET resin by source and border of entry in 2016.

Table IV-4
PET resin: U.S. imports, by source and by border of entry, 2016

Item	Border of entry				
	East	North	South	West	Total
	Quantity (1,000 pounds)				
U.S. imports from.--					
Brazil	99,472	4,792	11,779	12,700	128,743
Indonesia	916	---	---	77,171	78,088
Korea	2,581	404	302	54,327	57,614
Pakistan	75,675	429	---	4,953	81,057
Taiwan	39,615	4	5,876	208,757	254,252
Subject sources	218,260	5,629	17,957	357,909	599,754
Nonsubject sources	186,265	100,642	553,741	63,575	904,222
All import sources	404,525	106,271	571,697	421,484	1,503,977
	Share down (percent)				
U.S. imports from.--					
Brazil	24.6	4.5	2.1	3.0	8.6
Indonesia	0.2	---	---	18.3	5.2
Korea	0.6	0.4	0.1	12.9	3.8
Pakistan	18.7	0.4	---	1.2	5.4
Taiwan	9.8	0.0	1.0	49.5	16.9
Subject sources	54.0	5.3	3.1	84.9	39.9
Nonsubject sources	46.0	94.7	96.9	15.1	60.1
All import sources	100.0	100.0	100.0	100.0	100.0
	Share across (percent)				
U.S. imports from.--					
Brazil	77.3	3.7	9.1	9.9	100.0
Indonesia	1.2	---	---	98.8	100.0
Korea	4.5	0.7	0.5	94.3	100.0
Pakistan	93.4	0.5	---	6.1	100.0
Taiwan	15.6	0.0	2.3	82.1	100.0
Subject sources	36.4	0.9	3.0	59.7	100.0
Nonsubject sources	20.6	11.1	61.2	7.0	100.0
All import sources	26.9	7.1	38.0	28.0	100.0

Note. – Shares and ratios shown as “0.0” represent values greater than zero, but less than “0.05” percent.

Source: Official U.S. import statistics using HTS statistical reporting numbers 3907.60.0030, 3907.61.0000, and 3907.69.0000, accessed October 7, 2017.

Presence in the market

According to official U.S. import statistics, subject U.S. imports of PET resin from Indonesia, Pakistan, and Taiwan were present in each month during January 2014-August 2017. Subject U.S. imports from Brazil were present in each month from March 2015 to August 2017 but from January 2014 to February 2015 were only present in August 2014. Subject U.S. imports from Korea were present in each month during January 2014 to August 2017 except for May 2014, August 2014, October 2014, and January to March 2015. The volume of U.S. imports from Brazil, Pakistan, and Taiwan peaked in March 2017, August 2017, and November 2016, respectively, while those from Indonesia and Korea peaked in May 2017.

Table IV-5
PET resin: Monthly U.S. imports, by sources, January 2014 through August 2017

Item	U.S. imports							
	Brazil	Indonesia	Korea	Pakistan	Taiwan	Subject sources	Nonsubject sources	All import sources
	Quantity (1,000 pounds)							
2014.--January	---	2,351	44	4,135	5,044	11,574	101,184	112,758
February	---	2,355	440	1,796	5,869	10,459	68,809	79,268
March	---	3,832	220	1,431	8,927	14,409	84,196	98,604
April	0	2,886	440	4,522	7,218	15,066	98,935	114,001
May	---	3,004	---	4,561	5,966	13,530	105,978	119,508
June	---	4,168	880	3,284	3,202	11,534	111,381	122,915
July	---	2,910	220	2,474	5,869	11,473	100,896	112,369
August	2	4,171	---	1,145	5,997	11,315	107,234	118,549
September	---	5,591	660	1,848	6,572	14,671	91,730	106,400
October	---	8,730	---	611	3,832	13,173	106,517	119,690
November	---	5,190	198	1,096	3,793	10,277	80,157	90,434
December	---	4,123	233	2,425	3,704	10,485	86,346	96,831
2015.--January	---	2,280	---	1,937	5,684	9,901	124,128	134,028
February	---	2,425	---	3,104	3,492	9,021	92,127	101,148
March	485	6,184	---	2,745	6,412	15,826	97,522	113,348
April	1,213	7,654	44	3,182	4,904	16,996	107,808	124,805
May	2,425	2,813	1,482	1,581	8,117	16,417	91,029	107,446
June	5,280	1,591	1,889	2,765	13,174	24,698	89,981	114,679
July	4,269	2,891	374	2,521	14,448	24,503	76,073	100,576
August	2,183	4,438	1,111	3,715	10,416	21,862	75,004	96,866
September	1,942	2,982	1,157	5,835	14,425	26,341	73,083	99,424
October	5,030	6,500	4,411	6,948	19,790	42,678	71,753	114,432
November	9,664	2,452	4,225	4,144	18,172	38,656	66,546	105,203
December	2,231	1,951	4,551	2,910	13,586	25,230	67,745	92,975

Table continued on the next page.

Table IV-5--Continued
PET resin: Monthly U.S. imports, by sources, January 2014 through August 2017

Item	U.S. imports							
	Brazil	Indonesia	Korea	Pakistan	Taiwan	Subject sources	Nonsubject sources	All import sources
	Quantity (1,000 pounds)							
2016.-- January	13,471	4,144	5,951	3,589	18,624	45,780	64,932	110,712
February	11,619	2,339	2,090	4,494	16,010	36,552	77,938	114,491
March	9,542	4,359	3,956	2,454	17,953	38,264	96,951	135,216
April	14,461	5,942	3,931	3,104	14,244	41,682	80,748	122,430
May	19,551	9,327	5,014	5,032	25,597	64,520	80,297	144,817
June	21,645	7,044	3,625	3,395	19,049	54,758	71,810	126,568
July	11,252	7,765	5,999	11,818	19,156	55,990	72,152	128,142
August	9,506	9,521	5,873	12,055	20,672	57,627	64,712	122,339
September	3,492	6,496	5,644	7,166	19,185	41,983	58,486	100,470
October	1,884	4,491	3,636	8,648	30,256	48,916	70,509	119,425
November	5,578	9,595	3,519	5,391	31,603	55,685	88,303	143,989
December	6,742	7,064	8,378	13,911	21,901	57,996	77,382	135,378
2017.-- January	26,093	6,435	12,710	11,355	22,811	79,404	97,630	177,034
February	29,210	5,129	18,218	6,329	29,105	87,990	93,222	181,213
March	35,903	10,098	21,752	10,758	28,890	107,402	97,971	205,373
April	26,982	12,588	14,308	17,864	21,017	92,759	90,038	182,796
May	23,435	13,703	25,944	15,213	25,306	103,602	92,534	196,136
June	25,519	7,609	18,610	11,187	21,519	84,444	85,941	170,385
July	29,425	6,192	15,856	16,664	22,054	90,192	98,920	189,111
August	25,675	6,869	9,977	18,146	25,639	86,306	77,766	164,072

Source: Official U.S. import statistics using HTS statistical reporting numbers 3907.60.0030, 3907.61.0000, and 3907.69.0000, accessed October 7, 2017.

APPARENT U.S. CONSUMPTION

Table IV-6 and figure IV-2 present data on apparent U.S. consumption for PET resin. Apparent consumption, by quantity, increased from *** pounds in 2014 to *** pounds in 2016, equivalent to a *** percent increase. It was *** percent lower in January-June 2017 than in January-June 2016. The growth in apparent U.S. consumption is driven by increasing demand for water bottles, packaging, and carpeting.[9] Conversely, the value of apparent U.S. consumption declined each year between 2014 and 2016, ending *** percent lower in 2016 than in 2014. However, it was *** percent greater in January-June 2017 than in January-June 2016.

[9] Conference transcript, p. 45 (Cullen); conference transcript, p. 144 (Ream).

Table IV-6
PET resin: Apparent U.S. consumption, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Quantity (1,000 pounds)				
U.S. producers' U.S. shipments	5,126,103	5,369,453	5,462,433	2,749,054	2,680,184
U.S. importers' U.S. shipments from.--					
Brazil	***	***	***	***	***
Indonesia	***	***	***	***	***
Korea	***	***	***	***	***
Pakistan	***	***	***	***	***
Taiwan	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
Mexico	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	3,616,987	3,141,521	2,816,592	1,413,032	1,409,671
U.S. importers' U.S. shipments from.--					
Brazil	***	***	***	***	***
Indonesia	***	***	***	***	***
Korea	***	***	***	***	***
Pakistan	***	***	***	***	***
Taiwan	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
Mexico	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***

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

Figure IV-2
PET resin: Apparent U.S. consumption, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

U.S. MARKET SHARES

U.S. market share data for PET resin are presented in table IV-7. U.S. producers' share of the domestic market, by quantity, fell by *** percentage points from 2014 to 2016. It was *** percentage points lower in January-June 2017 than in January-June 2016. On the other hand, subject imports' share of the U.S. market increased by *** percentage points from 2014 to 2016. It was *** percentage points higher in January-June 2017 than in January-June 2016. Each of the subject countries' shares of the U.S. market ***. Mexico's share of the U.S. market increased by *** percentage points from 2014 to 2016 while Canada's share decreased by *** percentage points. From January-June 2016 to January-June 2017, Canada's share of the U.S. market decreased by *** percentage points while Mexico's share ***.

Table IV-7
PET resin: Market shares, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

Two crude oil-based raw materials, monoethylene glycol ("MEG") and purified terephthalic acid ("PTA"), historically account for over 75 percent of the cost of producing PET resin.[1] In general, production of 1 kilogram of PET resin requires 850 grams of PTA and 350 grams of MEG.[2] In these investigations, raw materials as a share of cost of goods sold varied from *** percent to *** percent between 2014 and 2016.

As shown in figure V-1, the price of PTA declined *** percent between January 2014 and June 2017, while the price of MEG declined *** percent over the same time period. Most of the decline occurred between January 2014 and March 2016, when prices stabilized through the end of 2016. In January 2017, PTA and MEG prices increased, before declining through June 2017.

Figure V-1
PET resin: Prices of raw materials, MEG and PTA, by month, January 2014 to June 2017

* * * * * * *

*** reported that the correlation between U.S. PTA prices and global PTA prices has not changed since the Commission's 2016 previous related PET resin investigations; at that time, U.S. PTA prices were higher than global PTA prices, but domestic PTA was less expensive for U.S. producers to purchase because of additional transportation costs for the imported PTA.[3] Respondents testified that with vertical integration increasing in the U.S. industry, U.S. PTA producers currently command margins 2 to 4 times as large as foreign PTA producers.[4]

Producers and importers were asked how the prices of the raw materials for PET resin had changed since January 1, 2014. U.S. producers and most importers described the raw material prices as declining or fluctuating since January 1, 2014. Two producers and four importers reported that the price of raw materials had declined since 2014 and three producers

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[1] *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigations Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final)*, Publication 4604, April 2016, p. V-1.

[2] Ibid., p. V-1; Email from ***.

[3] U.S. International Trade Commission, *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman*, Investigations Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final), Publication 4604, April 2016, p. V-2; Conference transcript, p. 76 (McNaull).

[4] Conference transcript, p. 117 (Safieddin); Niagara postconference brief, p. 7.

and eight importers reported that raw material prices had fluctuated.[5] Two importers (***) reported that raw material prices had increased since January 1, 2014 and *** indicated that due to the increase in raw material prices, PET prices had gone up since 2014. *** noted that they use contracts that are tied to a formula that reflects raw material price changes. Respondents argued that the price of a third raw material, IPA, which accounts for less than 2 percent of the product, "escalated" in 2017.[6] The respondents added that although IPA is not included in the raw materials index that is used in the industry's pricing formula, *** and the rest of the consuming industry agreed to a price increase to offset IPA costs in the summer of 2017 through the end of the year.[7]

Transportation costs to the U.S. market

Transportation costs for PET resin shipped from subject countries to the United States averaged 7.9 percent for Brazil in 2016, 9.2 percent for Indonesia in 2016, 6.7 percent for Korea in 2016, 5.7 percent for Pakistan in 2016, and 5.4 percent for Taiwan in 2016. These estimates were derived from official import data and represent the transportation and other charges on imports.[8]

U.S. inland transportation costs

All four U.S. producers and eight responding importers reported that they typically arrange transportation to their customers. Most U.S. producers reported that their U.S. inland transportation costs ranged from 3 to 6 percent, while most importers reported costs of 1 to 10 percent.

PRICING PRACTICES

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations and contracts (table V-1).

[5] Producer *** reported that raw material prices had both declined and fluctuated. DAK testified that raw material prices had come down and have seen "fairly low" volatility in the recent past. Conference transcript, p. 76 (McNaull).

[6] Conference transcript, p. 118 (Safieddin), p. 153 (Ream).

[7] Graham Packaging postconference brief, pp. 24-25; Conference transcript, p. 153 (Ream).

[8] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2016 and then dividing by the customs value based on HTS statistical reporting number 3907.60.0030.

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

Method	U.S. producers	Importers
Transaction-by-transaction	4	10
Contract	3	8
Set price list	0	0
Other	0	0
Responding firms	4	10

[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 reported selling most of their PET resin using contracts of a year or longer (table V-2). Importers in contrast report selling most of their PET resin via spot sales.

Table V-2
PET resin: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2016

* * * * * * *

U.S. producers report that long-term contracts tend to be for two to three years, and short-term contracts last from one to three months. U.S. producers' long-term contracts allow price renegotiation during the contract. Two of three producers reported that they fix quantities; the other reported that both price and quantity are fixed. All three reported meet-or-release provisions in long-term contracts. Two U.S. producers each reported that prices were negotiated during the contract and prices were not negotiated during annual contracts; two producers reported that annual contracts fixed quantity; and one reported that both price and quantity were fixed. Three producers reported meet-or-release provisions in annual contracts and the other producer reported no meet-or-release provisions. Of the four producers reporting short-term contacts, two reported that prices were renegotiated during the contract and one reported that they were not. One producer reported fixing price, one producer reported fixing quantity, and one producer reported fixing both price and quantity in short-term contracts. Two reported meet-or-release provisions and one reported no meet-or-release provision in short-term contracts.

Importers reported that long-term contracts were 2 years long or "on going" and that short-term contracts were for 30 days. Three importers reported the terms of their long-term contracts. Two reported price renegotiations within the period of the contract, one reported no renegotiation during the contract, one reported that the contract fixed quantity, and all three reported there was no meet-or-release provision. All four importers reporting annual contracts reported no price renegotiations within the contract, one firm reported fixed quantity, two reported fixed prices, one reported meet-or-release provisions, and two reported no meet-or-release provisions. All three importers reporting provisions of short-term contracts reported

that prices were not renegotiated and both quantity and price were fixed. Two reported no meet-or-release provisions and one reported there were meet-or-release provisions.

Purchasers provided a general description of their firms' method of purchase for PET resin. Most reported at least some spot purchases, and half reported at least some contract purchases.

Sales terms and discounts

U.S. producers and importers typically quote prices on a delivered basis. All four U.S. producers reported volume discounts, two reported quantity discounts, one reported cash payment discounts, and one early payment discounts. Most importers reported no discount policy; four reported quantity discounts; four reported total volume discounts; one reported cash payment discounts; and one early payment discounts.

Two of the four responding U.S. producers reported sales were net 60 days and two reported net 30 days. Importers reported multiple terms. Of the eight responding importers, seven reported net 30 sales, five reported net 60 sales, and six reported other terms including advance payments, net 45 days, and net 90 days.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. sales value of the following PET resin products shipped to unrelated U.S. customers during January 2014–June 2017.[9] Data were also requested from importers for the cost of PET resin products that they directly imported and used in their own production of other products.

<u>Product 1.—</u>PET resin, being either a clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in water bottle applications.

<u>Product 2.—</u>PET resin, being either a clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in sheet and strapping.

<u>Product 3.—</u>PET resin, being either a clear homo- or co-polymer, and having an intrinsic viscosity of 0.78 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in carbonated soft drink applications.

[9] The pricing products are the same ones in *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273*, USITC Publication 4604, April 2016.

Product 4.—PET resin, being mainly a co-polymer, and having an intrinsic viscosity of 0.75 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in heat set or hot fill applications; food, household, and other products.

Four U.S. producers and nine 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 accounted for approximately 97.6 percent of U.S. producers' shipments of PET resin, 96.9 percent of U.S. shipments of subject imports from Brazil, 94.5 percent of U.S. shipments of subject imports from Indonesia, 48.5 percent of U.S. shipments of subject imports from Korea, and all U.S. shipments of subject imports from Pakistan and Taiwan in 2016.

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

Table V-3
PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 1 and margins of underselling/(overselling), by quarters, Jan. 2014–June 2017

* * * * * * *

Table V-4
PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 2 and margins of underselling/(overselling), by quarters, Jan. 2014–June 2017

* * * * * * *

Table V-5
PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 3 and margins of underselling/(overselling), by quarters, Jan. 2014–June 2017

* * * * * * *

[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. Two additional importers reported pricing data only for products from nonsubject sources.

Table V-6
PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 4 and margins of underselling/(overselling), by quarters, Jan. 2014–June 2017

* * * * * * *

Figure V-2
PET resin: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014–June 2017

* * * * * * *

Figure V-3
PET resin: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014–June 2017

* * * * * * *

Figure V-4
PET resin: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2014–June 2017

* * * * * * *

Figure V-5
PET resin: Weighted-average prices and quantities of domestic and imported product 4, by quarters, January 2014–June 2017

* * * * * * *

Import purchase cost data

Import purchase cost data were also collected but these accounted for 16.8 percent of import data for which price or import cost data were reported in 2016. Import purchase cost data were reported only for products 1 and 4. Most of these data, 96.1 percent of the volume and 93.7 percent of the value, were from end users reporting purchase cost data. Responding firms did not provide estimates for additional costs associated with directly importing for internal consumption. Import purchase cost data are presented in tables V-7 and V-8, and figures V-6 and V-7.

Table V-7
PET resin: Weighted-average prices and quantities of domestic product 1 and LDP value and quantities of imported product 1, by quarters, January 2014–June 2017

* * * * * * *

Table V-8
PET resin: Weighted-average prices and quantities of domestic product 4 and LDP value and quantities of imported product 4, by quarters, January 2014–June 2017

* * * * * * *

Figure V-6
PET resin: Weighted-average prices and quantities of domestic product 1 and LDP value and quantities of imported product 1, by quarters, January 2014–June 2017

* * * * * * *

Figure V-7
PET resin: Weighted-average domestic prices and quantities of product 4 and imported LDP value and quantities of product 4, by quarters, January 2014–June 2017

* * * * * * *

Price trends

In general, prices decreased during January 2014 to June 2017. Table V-9 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from 28.2 to 31.5 percent during January 2014 to June 2017, while import price decreases ranged from 12.8 to 32.3 percent.

Table V-9
PET resin: Summary of weighted-average f.o.b. prices for products 1-4 from the United States, and subject countries

* * * * * * *

Price comparisons

As shown in table V-10, prices for product imported from Brazil were below those for U.S.-produced product in 17 of 38 instances (213,688,483 pounds); margins of underselling ranged from 1.6 to 25.8 percent. In the remaining 21 instances (324,587,690 pounds), prices for product from Brazil were between 0.2 and 14.1 percent above prices for the domestic product. Prices for product imported from Indonesia were below those for U.S.-produced product in 6 of 18 instances (47,565,934 pounds); margins of underselling ranged from 2.1 to 7.6 percent. In the remaining 12 instances (61,820,572 pounds), prices for product from Indonesia were between 2.4 and 28.7 percent above prices for the domestic product. Prices for product imported from Korea were below those for U.S.-produced product in 15 of 20 instances (24,800,669 pounds); margins of underselling ranged from 5.9 to 53.0 percent. In the remaining 5 instances (23,259,564 pounds), prices for product from Korea were between 1.3 and 11.9 percent above prices for the domestic product. Prices for product imported from Pakistan were below those for U.S.-produced product in 31 of 44 instances (107,919,464 pounds); margins of underselling ranged from 1.3 to 16.6 percent. In the remaining 13 instances (26,971,635 pounds), prices for product from Pakistan were between 0.5 and 23.5 percent above prices for the domestic product. Prices for product imported from Taiwan were below those for U.S.-produced product in 21 of 38 instances (318,159,322 pounds); margins of underselling ranged from 0.5 to 18.5 percent. In the remaining 17 instances (96,722,459 pounds), prices for product from Taiwan were between 1.3 and 17.5 percent above prices for the domestic product.

Table V-10
PET resin: Instances of underselling/(overselling) and the range and average of margins, by product and by country, January 2014–June 2017

Source	Underselling				
	Number of quarters	Quantity[1] (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	30	392,137,710	12.8	1.4	53.0
Product 2	9	24,878,149	12.9	1.3	45.3
Product 3	30	140,846,592	8.2	0.5	16.6
Product 4	21	154,271,421	7.1	1.4	18.7
Total, underselling	90	712,133,872	10.0	0.5	53.0
Brazil	17	213,688,483	11.3	1.6	25.8
Indonesia	6	47,565,934	5.2	2.1	7.6
Korea	15	24,800,669	18.9	5.9	53.0
Pakistan	31	107,919,464	7.1	1.3	16.6
Taiwan	21	318,159,322	8.1	0.5	18.5
Total, underselling	90	712,133,872	10.0	0.5	53.0
Source	**(Overselling)**				
	Number of quarters	Quantity[1] (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	21	177,502,611	(6.4)	(0.6)	(23.5)
Product 2	24	139,847,433	(6.8)	(0.2)	(16.5)
Product 3	14	53,330,983	(11.3)	(1.2)	(28.7)
Product 4	9	162,680,893	(5.8)	(1.4)	(17.5)
Total, overselling	68	533,361,920	(7.5)	(0.2)	(28.7)
Brazil	21	324,587,690	(5.9)	(0.2)	(14.1)
Indonesia	12	61,820,572	(14.4)	(2.4)	(28.7)
Korea	5	23,259,564	(8.7)	(1.3)	(11.9)
Pakistan	13	26,971,635	(6.5)	(0.5)	(23.5)
Taiwan	17	96,722,459	(4.9)	(1.3)	(17.5)
Total, overselling	68	533,361,920	(7.5)	(0.2)	(28.7)

[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 resin report purchases where they experienced instances of lost sales or revenue due to competition from imports of PET resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan during January 2014-June 2017. Of the four responding U.S. producers, *** reported that they had to reduce prices and roll back announced price increases, and *** firms reported that they had lost sales. *** U.S. producers

submitted lost sales and lost revenue allegations. The *** responding U.S. producers identified 25 firms where they lost sales; no producers alleged lost revenue. Lost sales allegations were against all subject countries. All allegations were for spot sales between January 2014 and June 2017.

Staff contacted 25 purchasers and received responses from 14 purchasers. Responding purchasers reported purchasing *** of PET resin during 2016 (table V-11).

Table V-11
PET resin: Purchasers' responses to purchasing patterns

* * * * * * *

During 2016, responding purchasers purchased 61.2 percent from U.S. producers, 20.6 percent from subject countries,[11] 18.1 percent from nonsubject countries, and less than 1 percent from "unknown source" countries. During 2014-16, the reported share of purchases from domestic sources increased by 0.5 percent, while the share of purchases from subject sources also grew by 13.5 percent. Of the responding purchasers, seven reported increasing purchases from domestic producers, two reported decreasing purchases, and three reported fluctuating purchases.

Of the 14 responding purchasers, 10 reported that, since 2014, they had purchased imported PET resin from subject countries instead of U.S.-produced product. Six purchasers reported purchasing imports of PET resin from Brazil instead of domestic product, four from Pakistan, four from Taiwan, three from Korea, and one from Indonesia (table V-12).

[11] Purchasers reported *** percent of their 2016 purchases were sourced from Brazil, *** percent from Taiwan, *** percent from Indonesia, *** percent from Pakistan, and *** percent from Korea.

Table V-12
PET resin: Purchasers' responses, by country, to purchasing subject imports instead of domestic product

Source	Count of purchasers reporting subject instead of domestic	Count of purchasers reporting that imports were priced lower	Count of purchasers reporting that price was a primary reason for shift	Quantity subject purchased (pounds)	Other reasons for shift
Brazil	6	5	3	***	4
Indonesia	1	1	---	***	4
Korea	3	3	2	***	4
Pakistan	4	3	---	***	7
Taiwan	4	3	1	***	5
All subject sources	10	8	4	***	7

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

Eight purchasers reported that subject import prices were lower than U.S.-produced product, and four of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. The estimated quantity purchased from subject import sources rather than domestic sources since January 2014 was *** (table V-13). Purchasers identified diversification of supply source, performance and reliability, vendor relationship, and packaging options as non-price reasons for purchasing imported rather than U.S.-produced product.

Table V-13
PET resin: Purchasers' responses to purchasing subject imports instead of domestic product

* * * * * * *

Of the 14 responding purchasers, seven purchasers reported that U.S. producers had not reduced prices in order to compete with lower priced imports from subject countries, while seven purchasers reported that they did not know (table V-14).

Table V-14
PET resin: Purchasers' responses to U.S. producer price reductions

Purchaser	Producers reduced price (Y/N)[1]
***	Don't Know
***	Don't Know
***	Don't Know
***	No
***	Don't Know
***	No
***	Don't Know
***	Don't Know
***	No
***	No
***	Don't Know
***	No
***	No
***	No
Total / average	Yes--0; No--7

[1] Since no purchasers reported that U.S. prices had changed, none were able to report the amount of the change.

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. Purchaser ***, which reported experiencing domestic supply constraints, stated that ***. The firm also reported that Canadian and Mexican suppliers of PET resin would be at an advantage should duties be imposed, as there are currently no import duties on PET resin imported from Canada and Mexico, and Canadian product is priced lower.

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

INTRODUCTION

Four U.S. producers (DAK, Indorama, M&G, and Nan Ya) provided financial data on their operations on PET resin.[1] [2] These data are believed to account for virtually all U.S. production of PET resin from January 2014 to June 2017. No firms reported sales other than commercial sales, and all firms reported a fiscal year end of December 31.

OPERATIONS ON PET RESIN

Income-and-loss data for U.S. producers of PET resin are presented in table VI-1, while selected financial data, by firm, are presented in table VI-2. The reported financial condition of the U.S. industry improved from 2014 to 2016, but was notably lower in January-June 2017 compared to January-June 2016. The reported aggregate net sales quantity increased by *** percent between 2014 and 2016, while the aggregate net sales value declined by *** percent during this time. Collectively, the aggregate cost of goods sold ("COGS") and selling, general, and administrative ("SG&A") expenses declined by *** percent during this time. As a result of the ***, aggregate operating income ***. Between the comparable interim periods, the reported aggregate net sales quantity was lower by *** percent, while the aggregate net sales value was higher by *** percent. Collectively, operating costs and expenses were higher by *** percent during this time. As a result of the *** compared to revenue, aggregate operating income ***. In general, the trends for gross and net income are similar to operating income during the period examined; however, all five periods show *** while *** occurred in all periods except 2016 and January-June 2016.

On a per-pound basis, the net sales value declined by $*** from 2014 to 2016, raw material costs declined by $***,[3] and total operating costs and expenses declined by about $*** during this time. ***. The net sales value was $*** higher in January-June 2017 compared to January-June 2016, raw material costs were $*** higher, and total operating costs and expenses were higher by $***. ***. As previously mentioned, the trends in gross and net income are similar to operating income during the period examined.

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[1] Respondents' briefs note that the U.S. industry has become more vertically integrated regarding the production of PET resin raw materials since mid-2015. For example, see Niagara's postconference brief, pp. 6-7.

[2] As previously discussed in this report, M&G filed for Chapter 11 bankruptcy protection on October 24, 2017. One week earlier, M&G's parent company filed an application for bankruptcy protection under Italian law. *M&GPolymers USA Files for Chapter 11 Protection,* http://www.plasticsnews.com/article/20171025/NEWS/171029941/mg-polymers-usa-files-for-chapter-11-protection, accessed October 27, 2017.

[3] As previously discussed in this report, a significant amount of PET resin is sold using pricing methods based on fluctuations in raw materials costs.

As a ratio to net sales, both raw materials and overall COGS declined from 2014 to 2016, and were higher in January-June 2017 than in January-June 2016.

Table VI-1
PET resin: Results of operations of U.S. producers, 2014-16, January-June 2016, and January-June 2017

* * * * * * *

Table VI-2
PET resin: Selected results of operations of U.S. producers, by firm, 2014-16, January-June 2016, and January-June 2017

* * * * * * *

Raw material costs accounted for an average *** percent of total COGS for the reporting period, and had the greatest impact on the overall movement in COGS during this time.[4] [5] SG&A expenses, which accounted for *** percent of overall operating costs and expenses during the reporting period, were relatively stable on a per-pound basis and as a ratio to net sales during the period examined.

While most U.S. producers showed ***.[6] In contrast, ***.[7]

[4] Questionnaire responses indicate that PTA accounted for *** percent of total reported 2016 raw material costs, MEG accounted for *** percent of total reported 2016 raw material costs, and all other raw materials accounted for *** percent of total reported 2016 raw material costs. U.S. producers' questionnaire responses, question III-9b.

[5] ***.

[6] See Petitioners' postconference brief, exhibit 1, p. 4, Graham's postconference brief, pp. 13-14, Niagara's postconference brief, pp. 5-6 and 14-15, and Ravago's postconference brief, pp. 9-10.

[7] ***.

CAPITAL EXPENDITURES, RESEARCH AND DEVELOPMENT EXPENSES, TOTAL ASSETS, AND RETURN ON ASSETS

The responding firms' aggregate data on capital expenditures, research and development ("R&D") expenses, total assets, and return on assets ("ROA") are shown in table VI-3. Four firms reported capital expenditure data, and three firms reported research and development ("R&D") expenses. Aggregate capital expenditures consistently increased from 2014 to 2016, but were lower in January-June 2017 compared to January-June 2016. R&D expenses irregularly increased during the three full year periods, but were somewhat lower between the comparable interim periods. The majority of reported capital expenditures during the period examined reflect the data of ***.[8] ***.[9] ***.[10] As with capital expenditures, *** reported the vast majority of R&D expenses during the reporting period. ***.[11]

The total assets utilized in the production, warehousing, and sale of PET resin increased from $*** in 2014 to $*** in 2016. The ROA consistently increased from *** percent in 2014 to *** percent in 2016.[12]

Table VI-3
PET resin: Capital expenditures, R&D expenses, total assets, and return on assets of U.S. producers, 2014-16, January-June 2016, and January-June 2017

* * * * * * *

[8] U.S. producers' questionnaire response of ***, question III-13.

[9] U.S. producers' questionnaire response of ***, question III-13.

[10] U.S. producers' questionnaire response of ***, question III-13. ***.

[11] U.S. producers' questionnaire response of ***, question III-13.

[12] The return on assets is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations may have been required in order to report a total asset value for PET resin.

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of PET resin to describe any negative effects of imports of PET resin from the subject countries on their firms' return on investment or the scale of capital investments, as well as any negative effects on their firms' growth, ability to raise capital, or existing development and production efforts. A summary of U.S. producers' responses are shown in table VI-4. Firm-specific responses are shown in table VI-5.

Table VI-4
PET resin: Actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2014

Item	No	Yes
Negative effects on investment	0	4
Cancellation, postponement, or rejection of expansion projects		2
Denial or rejection of investment proposal		0
Reduction in the size of capital investments		0
Return on specific investments negatively impacted		0
Other		4
Negative effects on growth and development	0	4
Rejection of bank loans		0
Lowering of credit rating		0
Problem related to the issue of stocks or bonds		0
Ability to service debt		1
Other		4
Anticipated negative effects of imports	0	4

Note—***.

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

Table VI-5
PET resin: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2014

* * * * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

---

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

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

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

Information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

THE INDUSTRY IN BRAZIL

The Commission issued foreign producers'/exporters' questionnaires to five firms identified as possible producers and/or exporters of PET resin from Brazil.[3] Usable responses to the Commission's questionnaire were received from two firms: M&G Polimeros Brazil S/A

[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."

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

("M&G Brazil")[4] and Companhia Integrada Textil de Pernambuco ("Citepe")[5]. These firms' exports to the United States accounted for approximately *** percent of U.S. imports of PET resin from Brazil in 2016. According to estimates provided by the responding Brazilian producers, these firms accounted for virtually all known production of PET resin in Brazil. Table VII-1 presents information on the PET resin operations of the responding producers and exporters in Brazil.

Table VII-1
PET resin: Summary data for producers in Brazil, 2016

* * * * * * *

Changes in operations

As presented in table VII-2, *** reported operational and organizational changes since January 1, 2014. Citepe reported ***. M&G Brazil reported *** since January 1, 2014.

Table VII-2
PET resin: Brazilian producers' reported changes in operations, since January 1, 2014

* * * * * * *

Operations on PET resin

Table VII-3 presents information on the PET resin operations of the responding producers in Brazil. Brazilian producers' production capacity increased by *** percent, *** pounds, from 2014 to 2016. It was unchanged in January-June 2017 compared to January-June 2016, and is projected to be *** pounds in 2017 and 2018. Production increased by *** percent, *** pounds, from 2014 to 2016. Production was *** percent lower, by *** pounds, in January-June 2017 compared to January-June 2016. Capacity utilization decreased by *** percentage points from 2014 to 2016, and was *** percentage points lower in January-June 2017 than in January-June 2016. Capacity utilization is projected to decrease by *** percentage points from 2017 to 2018.

[4] ***.
[5] ***.

Table VII-3

PET resin: Data on industry in Brazil, 2014-16, January to June 2017, January to June 2017, and projected calendar years 2017 and 2018

* * * * * * *

An overwhelming majority of Brazilian producers' total shipments of PET resin are to the commercial home market (*** percent of total shipments in 2014, *** percent in 2015, *** percent in 2016, and *** percent during the first half of 2017). Exports accounted for a relatively smaller, but increasing, share of Brazilian producers' total shipments during the period of investigation. In 2014, Brazilian producers' exports accounted for *** percent of their total shipments. By 2016, exports accounted for *** percent of total shipments and, by the first half of 2017, exports accounted for *** percent.

In 2014 and 2016, the majority of Brazilian exports were destined for ***. ***. These shipments accounted for *** percent and *** percent of total exports, respectively, in 2014 and 2016. Conversely, in 2015, most Brazilian exports went to ***, accounting for *** percent of total exports. Export shipments to the United States increased by *** percent, *** pounds, from 2014 to 2016; the majority of the increase occurred from 2015 to 2016. It was *** percent higher in January-June 2017 compared to January-June 2016. Exports from Brazil are projected to decrease by *** percent, *** pounds, from 2017 to 2018.

Alternative products

Responding Brazilian firms did not report production of other products on the same equipment and machinery used to produce PET resin.

Exports

According to Global Trade Atlas ("GTA"), the leading export markets for PET resin from Brazil are the United States, Venezuela, and Columbia (table VII-4). During 2016, the United States was the top export market for PET resin from Brazil, accounting for 75.0 percent, followed by Venezuela, accounting for 13.3 percent.

Table VII-4
PET resin: Exports from Brazil, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Brazil exports to the United States	3,444	65,346	298,961
Brazil exports to other major destination markets.--			
Venezuela	71,930	43,934	52,899
Colombia	6,894	36,350	27,427
Argentina	140	33,255	10,587
Paraquay	0	97	6,038
Canada	---	3,670	1,774
Belgium	---	---	582
Peru	---	---	97
Uruguay	---	291	69
All other destination markets	484	18,508	110
Total Brazil exports	82,892	201,450	398,546
	Value (1,000 dollars)		
Brazil exports to the United States	3,174	29,200	137,583
Brazil exports to other major destination markets.--			
Venezuela	51,009	28,315	30,410
Colombia	4,582	17,061	11,102
Argentina	123	18,159	4,743
Paraquay	3	42	2,484
Canada	---	1,639	695
Belgium	---	---	222
Peru	---	---	40
Uruguay	---	110	26
All other destination markets	338	9,954	67
Total Brazil exports	59,229	104,480	187,372

Source: Official exports statistics under HS subheading 3907.61 and 3907.69 as reported by Brazil in the GTA database, accessed October 4, 2017.

THE INDUSTRY IN INDONESIA

The Commission issued foreign producers'/exporters' questionnaires to seven firms identified as possible producers and/or exporters of PET resin from Indonesia.[6] Usable responses to the Commission's questionnaire were received from three producers: PT Indorama Polypet Indonesia ("Indorama Polypet")[7]; Indorama Ventures Indonesia, PT ("Indorama Ventures")[8]; and PT. Indo-Rama Synthetics Tbk. ("Indorama Synthetics").[9] *** percent of U.S. imports of PET resin from Indonesia in 2016. According to estimates provided by the responding Indonesian producers, these firms accounted for virtually all known production of PET resin in Indonesia. Table VII-5 presents information on the PET resin operations of the responding producers in Indonesia.

Table VII-5
PET resin: Summary data for producers in Indonesia, 2016

* * * * * * *

Changes in operations

The three responding Indonesian producers reported no operational and/or organizational changes since January 1, 2014.

Operations on PET resin

Table VII-6 presents information on the PET resin operations of the responding producers in Indonesia.

Table VII-6
PET resin: Data on industry in Indonesia, 2014-16, January to June 2016, January to June 2017, and projected calendar years 2017 and 2018

* * * * * * *

Indonesian producers' production capacity increased by *** pounds from 2014 to 2016, an increase of *** percent. Capacity was *** lower in January-June 2017, than in January-June 2016. Capacity is projected to fall back to 2015 levels and remain at *** pounds in 2017 and 2018. Production increased by *** pounds from 2014 to 2016, equivalent to a *** percent

[6] These firms were identified through a review of information submitted in the petitions and contained in *** records.

[7] ***.

[8] ***.

[9] ***.

increase. ***. Production was *** pounds lower in January-June 2017 than in January-June 2016 and is expected to increase in 2017-18 over the level reported for 2016. ***. Capacity utilization increased by *** percentage points from 2014 to 2016, and was *** percentage points lower in January-June 2017 than in January-June 2016. Capacity utilization is projected to increase over the level reported in 2016 and is expected to remain at *** percent and *** percent in 2017 and 2018.

*** of Indonesian producers' total shipments of PET resin are export shipments (*** percent of total shipments in 2016), while the remainder are reported to be commercial home market shipments (*** percent in 2016). The Indonesian producers did not report any internal consumption/transfers of PET resin.

Indonesian producers' total home market shipments increased by *** percent from 2014 to 2016. ***. Total home market shipments were *** percent lower in January-June 2017 than in January-June 2016. Total home market shipments accounted for *** percent of total shipments from 2014 to 2016.

From 2014 to 2016, export shipments were largely destined for *** markets. Export shipments to non-U.S. markets accounted from *** percent to *** percent of total export shipments during 2014-16. Export shipments to the United States increased by *** percent, *** pounds, from 2014 to 2016. It was *** percent higher in January-June 2017 than in January-June 2016. Exports shipments to the United States are projected to increase from 2016 levels and remain at *** pounds in 2017 and 2018.

Indonesia producers' export shipments to all other markets decreased by *** percent from 2014 to 2016. These firms identified *** as the other principal export markets. Their export shipments to all other markets were *** percent lower in January-June 2017 than in January-June 2016, and export shipments to other markets are expected decrease by *** pounds from 2017 to 2018. ***.

Alternative products

*** reported production of other products on the same equipment and machinery used to produce PET resin (table VII-7). Overall capacity increased by *** pounds, equivalent to *** percent, from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. Overall production increased by *** percent, *** pounds from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. PET resin accounted for *** percent of total production from 2014 to 2016. ***.

Table VII-7
PET resin: Overall capacity and production on the same equipment as in-scope production by producers in Indonesia, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

Exports

According to GTA, the leading export markets for PET resin produced in Indonesia are the United States, Italy, and Japan (table VII-8). During 2016, Italy was the top export market for PET resin produced in Indonesia, accounting for 23.0 percent of total exports, followed by Japan, accounting for 15.3 percent, and the United States, accounting for 12.8 percent.

Table VII-8
PET resin: Indonesia exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Indonesia exports to the United States	53,994	50,538	92,583
Indonesia exports to other major destination markets.--			
Italy	170,389	193,645	166,802
Japan	96,790	100,665	111,160
China	72,701	153,076	81,828
Vietnam	44,585	79,327	79,217
Bangladesh	32,209	33,520	40,352
South Africa	---	456	24,291
Korea South	19,520	12,847	16,406
Brazil	4,462	---	441
All other destination markets	241,831	188,770	112,020
Total Indonesia exports	736,479	812,846	725,098
	Value (1,000 dollars)		
Indonesia exports to the United States	33,415	22,665	40,038
Indonesia exports to other major destination markets.--			
Italy	96,915	85,511	66,644
Japan	58,554	48,267	47,972
China	26,945	44,201	21,148
Vietnam	26,526	34,489	29,727
Bangladesh	17,040	13,397	14,833
South Africa	---	251	9,722
Korea South	8,704	4,264	4,452
Brazil	2,861	---	174
All other destination markets	138,169	82,724	42,165
Total Indonesia exports	409,128	335,770	276,876

Source: Official exports statistics under HS subheading 3907.61 and 3907.69 as reported by Indonesia in the GTA database, accessed October 4, 2017.

THE INDUSTRY IN KOREA

The Commission issued foreign producers'/exporters' questionnaires to 16 firms identified as possible producers and/or exporters of PET resin from Korea.[10] Usable responses to the Commission's questionnaire were received from three firms: Lotte Chemical Corp. ("Lotte Chemical");[11] TK Chemical Corp. ("TK Chemical");[12] and SK Chemicals Co., Ltd. ("SK Chemicals").[13] These firms' exports to the United States accounted for *** U.S. imports of PET resin from Korea in 2016.[14] According to estimates provided by the responding Korean producers, these firms accounted for virtually all known production of PET resin in Korea. Table VII-9 presents information on the PET resin operations of the responding producers in Korea.

Table VII-9
PET resin: Summary data for producers in Korea, 2016

* * * * * * *

Changes in operations

As presented in table VII-10, *** reported operational and/or organizational changes since January 1, 2014. ***.

Table VII-10
PET resin: Reported changes in operations by producers in Korea, since January 1, 2014

* * * * * * *

Operations on PET resin

Table VII-11 presents information on the PET resin operations of the responding producers in Korea. Between 2014 and 2016, Korean producers' production capacity decreased by *** percent, from *** pounds to *** pounds. Capacity was *** pounds lower in January-June 2017 compared to January-June 2016, but is projected to be *** pounds in 2017 and 2018. Production decreased by *** pounds from 2014 to 2016 and was *** percent lower in January-June 2017 than in January-June 2016. Projections indicate that production is expected to decline further in 2017 and 2018. Capacity utilization increased by *** percentage points from 2014 to 2016, and was *** percentage points higher in January-June 2017 than in January-June 2016. Capacity utilization is projected to decrease by *** percentage points from 2017 to 2018.

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[10] These firms were identified through a review of information submitted in the petitions and contained in *** records.

[11] ***.

[12] ***.

[13] ***.

[14] Lotte Chemical's reported ***, email message to USITC staff, October 26, 2017.

About *** Korean producers' total shipments of PET resin are export shipments (*** percent in 2016), and the remainder are reported to be home market shipments (*** percent in 2016), *** of which are shipments to the commercial home market.

Korean producers' total home market shipments increased by *** percent from 2014 to 2016. Total home market shipments were *** percent higher in January-June 2017 than in January-June 2016. Total home market shipments are projected to increase by *** percent from 2017 to 2018. Total home market shipments accounted for *** percent of total shipments from 2014 to 2016.

Table VII-11
PET resin: Data on industry in Korea, 2014-16, January to June 2016, January to June 2017, and projected calendar years 2017 and 2018

* * * * * * *

From 2014 to 2016, the majority of export shipments were destined to *** markets. Korean producers identified *** as the principal other export markets. These shipments accounted from *** percent to *** percent of total export shipments during 2014-16. Export shipments to the United States increased from *** pounds to *** pounds from 2014 to 2016, equivalent to a *** percent increase. ***. Export shipments were *** percent higher in January-June 2017 compared to January-June 2016. Exports from Korea to the United States are projected to increase by *** pounds from 2016 to 2017 and by *** pounds from 2017 to 2018.

Alternative products

As shown in table VII-12, *** reported producing out-of-scope products using the same equipment as in-scope products. Overall capacity decreased by *** pounds, equivalent to *** percent, from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. Overall production increased by *** percent, *** pounds from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. PET resin accounted for *** percent of total production from 2014 to 2006. ***.[15]

Table VII-12
PET resin: Overall capacity and production on the same equipment as in-scope production by producers in Korea, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

[15] Questionnaire response of ***, II-4a.

According to GTA, the leading export markets for PET resin from Korea are Vietnam, China, and Italy (table VII-13). During 2016, Vietnam was the top export market for PET resin from Korea, accounting for 17.0 percent of total PET resin exports from Korea, followed by China, accounting for 12.3 percent, and Italy, accounting for 10.8 percent. Exports of PET resin from Korea to the United States accounted for 8.6 percent of total PET resin exports from Korea.

Table VII-13:
PET resin: Korea exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Korea exports to the United States	45,324	70,436	165,317
Korea exports to other major destination markets.--			
Vietnam	77,016	266,386	328,849
China	180,663	199,180	238,732
Italy	235,410	233,810	208,095
Iran	62,535	96,933	136,401
Japan	149,412	142,635	124,341
Indonesia	110,845	108,085	122,422
Spain	34,207	47,359	53,727
Turkey	25,645	21,977	52,579
All other destination markets	671,664	559,896	503,057
Total Korea exports	1,592,721	1,746,697	1,933,520
	Value (1,000 dollars)		
Korea exports to the United States	41,694	46,140	90,181
Korea exports to other major destination markets.--			
Vietnam	44,878	128,582	143,643
China	95,891	97,714	124,632
Italy	137,830	103,416	85,921
Iran	36,513	46,978	55,553
Japan	106,607	84,199	69,314
Indonesia	65,977	49,439	50,854
Spain	21,815	22,625	24,572
Turkey	14,354	9,590	21,281
All other destination markets	423,451	271,779	233,239
Total Korea exports	989,009	860,460	899,190

Source: Official exports statistics under HS subheading 3907.61 and 3907.69 as reported by Korea in the GTA database, accessed October 4, 2017.

THE INDUSTRY IN PAKISTAN

The Commission issued foreign producers'/exporters' questionnaires to two firms identified as possible producers and/or exporters of PET resin from Pakistan.[16] Usable responses to the Commission's questionnaire were received from one firm: Novatex Limited ("Novatex").[17] Novatex reported that it accounts for virtually all known production of PET resin in Pakistan. Table VII-14 presents information on Novatex's PET resin operations.

Table VII-14
PET resin: Summary data for the producer in Pakistan, 2016

* * * * * * *

As presented in table VII-15, Novatex indicated that it had experienced operational and organizational changes since January 1, 2014. Novatex reported that it ***. Novatex also reported ***.

Table VII-15
PET resin: Reported changes in operations by producers in Pakistan, since January 1, 2014

* * * * * * *

Operations on PET resin

Table VII-16 presents information on Novatex's PET resin operations. Novatex's production capacity increased by *** percent, *** pounds, from 2014 to 2016. It was *** percent higher in January-June 2017 compared to January-June 2016, and is projected to be*** pounds in 2017 and 2018, a level that is *** percent higher than that reported for 2016. Production increased by *** percent, *** pounds, from 2014 to 2016, and was *** percent higher in January-June 2017 than in January-June 2016. It is projected to increase by *** percent, *** pounds, from 2017 to 2018. Capacity utilization decreased by *** percentage points from 2014 to 2016, and was *** percentage points lower in January-June 2017 than in January-June 2016. It is projected to decline by *** percentage points from 2016 to 2017 and is expected to increase by *** percentage points from 2017 to 2018.

Table VII-16
PET resin: Data on industry in Pakistan, 2014-16, January to June 2016, January to June 2017, and projected calendar years 2017 and 2018

* * * * * * *

[16] These firms were identified through a review of information submitted in the petitions and contained in *** records.
[17] ***.

Slightly more than *** of Novatex's total shipments of PET resin are home market shipments (*** percent in 2016), and the remainder are reported to be export shipments (*** percent in 2016). *** (approximately *** in 2016) of Novatex's home market shipments are commercial shipments and *** are internally consumed/transferred.

Novatex's total home market shipments increased by *** percent from 2014 to 2016. Total home market shipments were *** percent higher in January-June 2017 than in January-June 2016. Total home market shipments are projected to increase by *** percent from 2017 to 2018. Total home market shipments accounted for *** percent of total shipments from 2014 to 2016.

From 2014 to 2016, the majority of export shipments were destined to *** markets. ***. These shipments accounted from *** percent to *** percent of total export shipments during 2014-16. Between 2014 and 2016, exports shipments to the United States increased by *** percent, from *** pounds in 2014 to *** pounds in 2016. It was *** percent higher in January-June 2017 than in January-June 2016. Export shipments from Pakistan to the United States are projected to increase by *** percent from 2016 to 2017 but are expected to decrease by *** percent, *** pounds, from 2017 to 2018. ***.

Alternative products

As shown in table VII-17, the responding Pakistani firm reported production of other products on the same equipment and machinery used to produce PET resin. Overall capacity increased by *** percent from 2014 to 2016. It was *** percent higher in January-June 2017 than in January-June 2016. Overall production increased by *** percent from 2014 to 2016. It was *** percent higher in January-June 2017 than in January-June 2016. PET resin accounted for *** percent of total production from 2014 to 2006. ***.

Table VII-17
PET resin: Overall capacity and production on the same equipment as in-scope production by producers in Pakistan, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

Exports

According to GTA, the leading export markets for PET resin from Pakistan are the United States, Turkey, and Canada (table VII-18). During 2016, the United States was the top export market for PET resin from Pakistan, accounting for 28.1 percent of total exports of PET resin from Pakistan, followed by the Turkey, accounting for 14.6 percent, and Canada, accounting for 13.9 percent.

Table IV-18:
PET resin: Pakistan exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Pakistan exports to the United States	28,117	35,907	63,718
Pakistan exports to other major destination markets.--			
Turkey	52,282	43,281	33,134
Canada	17,509	33,241	31,395
Italy	7,143	12,555	24,498
Germany	10,318	7,744	7,849
Bangladesh	5,933	5,359	7,721
Tanzania	---	1,545	7,699
Afghanistan	8,792	8,630	7,316
United Arab Emirates	10,463	14,581	6,094
All other destination markets	89,605	60,712	36,985
Total Pakistan exports	230,163	223,556	226,408
	Value (1,000 dollars)		
Pakistan exports to the United States	18,069	23,477	42,295
Pakistan exports to other major destination markets.--			
Turkey	31,038	19,520	18,561
Canada	10,924	17,752	22,598
Italy	4,465	6,896	12,998
Germany	6,383	4,462	5,279
Bangladesh	3,526	2,492	3,584
Tanzania	---	775	4,868
Afghanistan	5,105	4,048	3,391
United Arab Emirates	6,343	6,800	2,744
All other destination markets	54,227	30,873	19,518
Total Pakistan exports	140,081	117,095	135,835

Source: Official exports statistics under HS subheading 3907.61 and 3907.69 as reported by Pakistan in the GTA database, accessed October 4, 2017.

THE INDUSTRY IN TAIWAN

The Commission issued foreign producers'/exporters' questionnaires to seven firms identified as possible producers and/or exporters of PET resin from Taiwan.[18] Usable responses to the Commission's questionnaire were received from one firm: Far Eastern New Century Corporation ("Far Eastern").[19] Far Eastern accounted for approximately *** percent of U.S. imports from Taiwan in 2016. It also accounted for approximately *** percent of overall production of PET resin in Taiwan in 2016. Table VII-19 presents information on the PET resin operations of the responding producer in Taiwan.

Table VII-19
PET resin: Summary data for producer in Taiwan, 2016

* * * * * * *

Changes in operations

Far Eastern did not report any operational or organization changes since January 1, 2014.

Operations on PET resin

Table VII-20 presents information on Far Eastern's PET resin operations. Far Eastern's production capacity increased by *** percent from 2014 to 2016, but was *** percent lower in January-June 2017 than in January-June 2016. Capacity is projected to increase by *** percent from 2017 to 2018. Production increased by *** percent from 2014 to 2016, but was *** percent lower in January-June 2017 than in January-June 2016. It is projected to decline by *** percent from 2016 to 2017 but is expected to increase by *** percent from 2017 to 2018. Capacity utilization decreased by *** percentage points from 2014 to 2016, and was *** percentage points lower in January-June 2017 than in January-June 2016. It is projected to decrease by *** percentage points from 2016 to 2018.

Table VII-20
PET resin: Data on industry in Taiwan, 2014-16, January to June 2016, January to June 2017, and projected calendar years 2017 and 2018

* * * * * * *

[18] These firms were identified through a review of information submitted in the petitions and contained in *** records.

[19] ***.

*** of Far Eastern's total shipments of PET resin are export shipments (*** percent of total shipments in 2016). Home market shipments, a majority of which were internal consumptions/transfers, accounted for a ***, but increasing, share of Far Eastern's total shipments during the period of investigation. In 2014, Far Eastern's home market shipments accounted for *** percent of their total shipments. By 2016, home market shipments accounted for *** percent of total shipments and, by the first half of 2017, home market shipments accounted for *** percent.

Far Eastern's total home market shipments increased by *** percent from 2014 to 2016. Total home market shipments were *** percent higher in January-June 2017 than in January-June 2016. Total home market shipments are projected to decrease by *** percent from 2017 to 2018. Total home market shipments accounted for *** percent of total shipments from 2014 to 2016.

From 2014 to 2016, the majority of export shipments were destined to *** markets. ***. Export shipments to the United States increased by *** percent, from *** pounds to *** pounds. It was *** percent lower in January-June 2017 than in January-June 2016. Exports shipments to the United States are projected to decline by *** percent from 2016 to 2018.

Alternative products

As shown in table VII-21, Far Eastern reported production of other products on the same equipment and machinery used to produce PET resin. Overall capacity increased by *** percent from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. Overall production increased by *** percent from 2014 to 2016. It was *** percent lower in January-June 2017 than in January-June 2016. PET resin accounted for *** percent of total production from 2014 to 2006. ***. This out-of-scope production accounted for *** percent of total production by the firm during 2016.

Table VII-21
PET resin: Overall capacity and production on the same equipment as in-scope production by producers in Taiwan, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

Exports

According to GTA, the leading export markets for PET resin from Taiwan are the United States, Japan, and Peru (table VII-22). During 2016, Japan was the top export market for PET resin from Taiwan, accounting for 23.4 percent of total exports of PET resin from Taiwan, followed by the United States, accounting for 15.6 percent, and Peru, accounting for 5.8 percent.

Table IV-22
PET resin: Taiwan exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Taiwan exports to the United States	86,349	255,598	297,319
Taiwan exports to other major destination markets.--			
Japan	406,507	459,578	446,043
Peru	86,536	75,777	111,275
Vietnam	28,829	46,556	98,414
China	47,418	56,711	77,172
El Salvador	71,200	67,029	72,655
Australia	74,096	67,069	66,883
Saudi Arabia	63,039	59,889	54,710
Honduras	44,812	48,370	54,108
All other destination markets	707,823	648,614	625,439
Total Taiwan exports	1,616,610	1,785,190	1,904,018
	Value (1,000 dollars)		
Taiwan exports to the United States	57,095	120,276	127,809
Taiwan exports to other major destination markets.--			
Japan	256,237	222,169	199,801
Peru	52,486	36,260	44,518
Vietnam	14,795	19,265	38,642
China	28,960	26,106	33,123
El Salvador	42,720	31,378	30,741
Australia	45,269	32,132	27,959
Saudi Arabia	35,993	26,688	21,335
Honduras	27,103	22,656	23,033
All other destination markets	415,132	295,997	257,102
Total Taiwan exports	975,791	832,926	804,065

Source: Official exports statistics under HS subheading 3907.61 and 3907.69 as reported by Taiwan in the GTA database, accessed October 4, 2017.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-23 presents data on U.S. importers' reported inventories of PET resin. U.S. importers' end-of-period inventories of imports from subject countries increased by *** percent from 2014 to 2016, and were higher during the first six months of 2017 than the comparable period in 2016. U.S. importers' end-of-period inventories of imports from Brazil, Indonesia, Pakistan, and Taiwan increased by *** from 2014 to 2016. U.S. importers *** inventories of imports from Korea *** from 2015 to 2016 end-of-period inventories of those imports increased by *** percent. End-of-period inventories from Brazil accounted for *** percent of all end-of-period inventories from subject countries in 2016. ***.

Table VII-23
PET resin: U.S. importers' end-of-period inventories of imports by source, 2014-16, January to June 2016, and January to June 2017

* * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of PET resin from Brazil, Indonesia, Korea, Pakistan, and/or Taiwan after June 30, 2017 (Table VII-24). Responding importers reported *** pounds of arranged imports from Brazil, *** pounds of arranged imports from Indonesia, *** pounds of arranged imports from Korea, *** pounds of arranged imports from Pakistan, and *** pounds of arranged imports from Taiwan. Ten out of 18 responding importers reported outstanding orders of PET resin from subject and nonsubject sources during July 2017 to June 2018.

Table VII-24
PET resin: Arranged imports, July 2017 through June 2018

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

The subject countries are affected by import injury measures in other third-country markets.

Brazil

An antidumping duty order is in place in Argentina on imports of PET resin from Brazil ***.[20]

Indonesia

Indonesia is subject an antidumping duty order in Malaysia (since March 2015).[21] Indonesia is subject to a safeguard measure in Turkey effective November 2011 and an investigation on whether to extend the measure was initiated in June 2017.[22] Polyethylene terephthalate exported from Indonesia is subject to a 5.1 percent ad valorem duty order in Argentina, effective March 15, 2017.[23]

Korea

Antidumping duty orders are in place on imports of PET resin from Korea in Argentina (since September 28, 2017), South Africa (since July 12, 2016), and Malaysia (since March 10, 2015). Antidumping proceedings against Korea are currently on-going in Indonesia. Safeguard measures are in place on imports of PET resin from Korea in Turkey (since November 8, 2014).[24] In June 2017, an investigation on imports of PET resin from Korea in Turkey was initiated to extend the safeguard measure.[25]

Pakistan

Safeguard measures have been in place in Turkey on imports of PET resin from Pakistan since 2011.[26] In June 2017, an investigation in Turkey was initiated to extend the safeguard measure.[27] Antidumping and countervailing duty investigations on imports of PET resin from Pakistan were initiated in Canada in August 2017.[28]

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[20] Questionnaire response from ***.
[21] Questionnaire response from ***.
[22] Petitioner's postconference Brief, Exhibit 15.
[23] Semi-Annual Report Under Article 16.4 of the Agreement: Argentina, World Trade Organization, Committee on Anti-Dumping Practices, August 24, 2017.
[24] Questionnaire response from ***.
[25] Petitioner's postconference Brief, Exhibit 15.
[26] Questionnaire response from ***.
[27] Petitioner's postconference Brief, Exhibit 15.
[28] Ibid.

Taiwan

Antidumping duty orders are in place on imports of PET resin from Taiwan in Argentina since September 28, 2016 and duty rates were increased in March 2017.[29] An antidumping duty order on imports of PET resin from Taiwan in Brazil has been in place since November 28, 2016 and South Africa since July 8, 2016.[30] In September 2017, Argentina increased the duty rates on imports of PET resin from Taiwan.[31]

INFORMATION ON NONSUBJECT COUNTRIES

In assessing whether the domestic industry is materially injured or threatened with material injury "by reason of subject imports," the legislative history states "that the Commission must examine all relevant evidence, including any known factors, other than the dumped or subsidized imports, that may be injuring the domestic industry, and that the Commission must examine those other factors (including non-subject imports) 'to ensure that it is not attributing injury from other sources to the subject imports.'"[32]

Global capacity, production, and shipments

According to published sources, global capacity in 2014 was ***.[33] China, accounts for approximately *** of the global production capacity. North America's share of global capacity declined from *** percent in 1990 to *** percent in 2014. In 2014, China, Korea, Taiwan, Oman, and Mexico were ***, which together accounted for more than *** of global exports.[34] Table VII-25 presents global capacity, production, trade, and consumption data on a regional basis. Table VII-26 shows the top ten world producers, which accounted for *** percent of the global PET resin production capacity in 2014. Figure VII-27 shows world consumption shares by region for 2014 and forecasted shares for 2019. Table VII-28 shows world consumption by end use for 2014 and forecasted consumption for 2019. Even though consumption is expected to increase, the percentages of consumption by end use is predicted to remain largely the same. The largest end use globally is beverages, which accounts *** percent of end use in 2014 and

[29] Petitioner's postconference Brief, Exhibit 15.

[30] Questionnaire response from ***.

[31] Petitioner's postconference Brief, Exhibit 15.

[32] *Mittal Steel Point Lisas Ltd. v. United States*, Slip Op. 2007-1552 at 17 (Fed. Cir. Sept. 18, 2008), quoting from Statement of Administrative Action on Uruguay Round Agreements Act, H.R. Rep. 103-316, Vol. I at 851-52; *see also Bratsk Aluminum Smelter v. United States*, 444 F.3d 1369 (Fed. Cir. 2006).

[33] The most recent annual period for which published global capacity data are available is 2014.

[34] *Chemical Economics Handbook*: *Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, August 2015, p. 32.

forecast to *** percent of end use in 2019.[35] Table VII-29 presents export data for the larger PET resin producing countries for 2014-16.

Table VII-25
PET resin: World capacity, production, imports, exports, and consumption 2013-14, projected capacity and consumption 2019, and annual growth rate, 2014-19 (forecast), by region/country

* * * * * * *

Table VII-26
PET resin: World top fifteen world producers of virgin PET resins, 2014[1]

* * * * * * *

Figure VII-27
PET resin: World Consumption by region–2014 and forecast 2019

* * * * * * *

Table VII-28
PET resin: World Consumption by end use–2014 and forecast 2019

* * * * * * *

[35] *Chemical Economics Handbook*: *Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, August 2015, p. 9.

Table VII-29
PET resin: Global exports, by country, 2012-14

Exporter	Calendar year		
	2014	2015	2016
	Value (1,000 dollars)		
United States	510,855	436,100	387,653
Brazil	59,229	104,480	187,372
Indonesia	409,128	335,770	276,876
South Korea	989,009	860,460	899,190
Pakistan	140,081	117,095	135,835
Taiwan	975,791	832,926	804,065
Subject exporters	2,573,238	2,250,731	2,303,338
All other major reporting exporters: China	2,904,297	2,049,216	1,904,491
India	517,248	591,431	761,794
Netherlands	619,448	557,214	485,139
Mexico	689,191	543,285	462,904
Lithuania	628,760	437,804	437,278
Belgium	363,822	427,048	430,675
Germany	510,140	400,240	374,130
Thailand	499,738	383,855	328,063
Spain	335,632	249,880	214,696
All other exporters	2,463,373	1,829,796	1,466,426
Total global exports	12,615,741	10,156,598	9,556,586
	Share of value (percent)		
United States	4.0	4.3	4.1
Brazil	0.5	1.0	2.0
Indonesia	3.2	3.3	2.9
South Korea	7.8	8.5	9.4
Pakistan	1.1	1.2	1.4
Taiwan	7.7	8.2	8.4
Subject exporters	20.4	22.2	24.1
All other major reporting exporters: China	23.0	20.2	19.9
India	4.1	5.8	8.0
Netherlands	4.9	5.5	5.1
Mexico	5.5	5.3	4.8
Lithuania	5.0	4.3	4.6
Belgium	2.9	4.2	4.5
Germany	4.0	3.9	3.9
Thailand	4.0	3.8	3.4
Spain	5.0	4.3	4.6
All other exporters	19.5	18.0	15.3
Total global exports	100.0	100.0	100.0

Source: Global Trade Atlas, data run on 04/08/15, based on HTS subheading 3907.60, which includes the two categories at the ten digit level of 3907.60.30, packaging grade PET, and 3907.60.70, other.

Canada

Selenis Canada is believed to be the sole producer of PET resin in Canada, with an annual virgin capacity of *** in 2014. The total production in Canada in 2014 was ***, and consumption was ***. The current outlook is for PET resin production in Canada to *** by *** by 2019, whereas consumption is forecast to increase to *** in 2019. The largest end use for PET resin in Canada is ***, which accounted for *** percent of the country's total consumption in 2014. The remaining *** percent of consumption in Canada was for ***. The consumption in Canada by end uses described is not expected to change significantly to the forecast period of 2019, with the demand expected to increase at *** percent annually, on average.[36]

According to data compiled in response to Commission questionnaires and supplemented with data from ***, Canada was a substantial nonsubject country source of imported PET resin, especially during 2014-15, with U.S. imports of PET resin from Canada accounting for *** percent of total U.S. imports in terms of quantity in 2014, *** percent in 2015, and *** percent in 2016. GTA data indicate that the United States is the leading export market for PET resin produced in Canada (table VII-30). During 2016, exports of PET resin to the United States amounted to 254.5 million pounds and accounted for 93.8 percent of total exports.

[36] *Chemical Economics Handbook*: *Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, August 2015, pp. 42-43.

Table VII-30
PET resin: Canada exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Canada exports to the United States	362,751	336,121	254,493
Canada exports to other major destination markets.--Malaysia	6,998	7,779	7,871
Mexico	4,084	936	5,721
China	3,553	3,541	2,137
Portugal	1,010	---	436
Ireland	1,042	423	355
Netherlands	159	113	97
Korea South	103	148	50
Brazil	3,437	12	30
All other destination markets	57	847	32
Total Canada exports	383,194	349,920	271,222
	Value (1,000 dollars)		
Canada exports to the United States	269,014	193,540	120,154
Canada exports to other major destination markets.--Malaysia	4,179	7,512	7,863
Mexico	2,815	551	3,099
China	3,653	3,756	2,209
Portugal	683	---	218
Ireland	612	400	368
Netherlands	160	104	100
Korea South	114	158	56
Brazil	2,353	16	36
All other destination markets	73	447	37
Total Canada exports	283,656	206,483	134,141

Table continued on next page.

Table VII-30--Continued
PET resin: Canada exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Unit value (dollars per pound)		
Canada exports to the United States	0.74	0.58	0.47
Canada exports to other major destination markets.-- Malaysia	0.60	0.97	1.00
Mexico	0.69	0.59	0.54
China	1.03	1.06	1.03
Portugal	0.68	---	0.50
Ireland	0.59	0.94	1.04
Netherlands	1.01	0.92	1.03
Korea South	1.11	1.06	1.13
Brazil	0.68	1.34	1.19
All other destination markets	1.29	0.53	1.18
Total Canada exports	0.74	0.59	0.49
	Share of quantity (percent)		
Canada exports to the United States	94.7	96.1	93.8
Canada exports to other major destination markets.-- Malaysia	1.8	2.2	2.9
Mexico	1.1	0.3	2.1
China	0.9	1.0	0.8
Portugal	0.3	---	0.2
Ireland	0.3	0.1	0.1
Netherlands	0.0	0.0	0.0
Korea South	0.0	0.0	0.0
Brazil	0.9	0.0	0.0
All other destination markets	0.0	0.2	0.0
Total Canada 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 3907.60 as reported by Canada in the GTA database, accessed October 4, 2017. In January of 2017, the HS of the in-scope product changed to 3907.61 and 3907.69.

Mexico

Table VII-31 shows Mexican producers' plant locations, raw materials, and capacity. Alpek, a major PTA supplier for the M&G (Mossi & Ghisolfi) Group, stopped supplying to M&G at both its Mexico and Brazil locations, and as of October 16, 2016 M&G shut its Mexican PET plant "due to liquidity constraints."[37] As of October 27, 2017 M&G has ceased PET Resin production at all of its plants worldwide following M&G's bankruptcy filings.[38]

Table VII-31
PET resin: Mexican producers' plant locations, raw materials, and capacity, 2011-2014, and projected capacity 2019.

* * * * * * *

During 2014 (the latest annual period for which data are available), reported PET resin capacity in Mexico was ***, total production in Mexico was ***, and consumption in Mexico was ***. The production capacity of PET resin in Mexico is expected to decline to *** in 2019, whereas consumption is expected to increase to *** by 2019. The largest end use for PET resin in Mexico is ***, which accounted for *** percent of the country's total consumption in 2014 and is expected to accounted for *** percent by 2019.[39]

According to data compiled in response to Commission questionnaires and supplemented with data from ***, Mexico was the largest single source of U.S. imports of PET resin during January 2014-June 2017. On a quantity basis, Mexico accounted for *** percent of total U.S. imports in 2014, *** percent in 2015, *** percent in 2016, and *** percent during the first half of 2017. *** accounted for *** percent of reported imports from Mexico in 2016. GTA data indicate that the United States is the leading export market for PET resin produced in Mexico (table VII-32). During 2016, exports of PET resin to the United States amounted to 616.6 million pounds and accounted for 61.6 percent of total exports. Mexico's second largest export market is Colombia, which account for 16.0 percent of total exports during 2016.

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[37] S&P Global, "*Mossi Ghisolfi money woes affecting Americas petrochemical operations,*" *https://www.platts.com/latest-news/petrochemicals/houston/mossi-ghisolfi-money-woes-affecting-americas-21287475*, retrieved October 23, 2017. Conference transcript, p. 110 (Ream).

[38] *M&G Group Companies in Bankruptcy Filing,* http://www.chemanager-online.com/en/news-opinions/headlines/mg-group-companies-bankruptcy-filing, accessed October 30, 2017.

[39] *Chemical Economics Handbook Polyethylene Terephthalate (PET) Solid-State Resins,* IHS, 2015, p.44-46.

Table VII-32
PET resin: Mexico exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 pounds)		
Mexico exports to the United States	461,779	522,157	616,564
Mexico exports to other major destination markets.--Colombia	256,270	196,540	159,862
Guatemala	20,630	3,323	21,792
Brazil	13,999	21,571	21,567
Dominican Republic	32,131	20,531	21,070
Venezuela	83,418	97,037	18,748
Portugal	---	220	14,163
Uruguay	4,822	8,181	13,952
Chile	34,058	24,875	12,827
All other destination markets	99,706	130,138	100,057
Total Mexico exports	1,006,813	1,024,574	1,000,603
	Value (1,000 dollars)		
Mexico exports to the United States	327,649	289,111	294,284
Mexico exports to other major destination markets.--Colombia	166,172	101,230	71,360
Guatemala	12,882	1,808	9,745
Brazil	9,078	11,297	9,944
Dominican Republic	20,526	10,177	9,277
Venezuela	66,664	67,918	12,334
Portugal	---	39	5,911
Uruguay	3,134	3,734	6,297
Chile	22,879	13,277	5,935
All other destination markets	60,207	44,694	37,818
Total Mexico exports	689,191	543,285	462,904

Table continued on next page.

Table VII-32--Continued
PET resin: Mexico exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Unit value (dollars per pound)		
Mexico exports to the United States	0.71	0.55	0.48
Mexico exports to other major destination markets.-- Colombia	0.65	0.52	0.45
Puerto Rico	0.62	0.54	0.45
Guatemala	0.65	0.52	0.46
Brazil	0.64	0.50	0.44
Dominican Republic	0.80	0.70	0.66
Venezuela	---	0.18	0.42
Portugal	0.65	0.46	0.45
Uruguay	0.67	0.53	0.46
All other destination markets	0.60	0.34	0.38
Total Mexico exports	0.68	0.53	0.46
	Share of quantity (percent)		
Mexico exports to the United States	45.9	51.0	61.6
Mexico exports to other major destination markets.-- Colombia	25.5	19.2	16.0
Puerto Rico	2.0	0.3	2.2
Guatemala	1.4	2.1	2.2
Brazil	3.2	2.0	2.1
Dominican Republic	8.3	9.5	1.9
Venezuela	---	0.0	1.4
Portugal	0.5	0.8	1.4
Uruguay	3.4	2.4	1.3
All other destination markets	9.9	12.7	10.0
Total Mexico 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 3907.60 as reported by Mexico in the GTA database, accessed October 4, 2017. In January of 2017, the HS of the in-scope product changed to 3907.61 and 3907.69.

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
82 FR 45890, October 2, 2017	*Polyethylene Terephthalate (PET) Resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan: Institution of Antidumping Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-10-02/pdf/2017-21010.pdf
82 FR 48977, October 23, 2017	*Polyethylene Terephthalate Resin from Brazil, Indonesia, the Republic of Korea, Pakistan, and Taiwan: Initiation of Less-Than-Fair-Value Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-10-23/pdf/2017-22931.pdf

APPENDIX B

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) Resin from Brazil, Indonesia, Korea, Pakistan, and Taiwan
Inv. Nos.:	731-TA-1387-1391 (Preliminary)
Date and Time:	October 17, 2017 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in the Main Hearing Room (Room 101), 500 E Street, S.W., Washington, DC.

EMBASSY APPEARANCE:

The Embassy of Indonesia
Washington, DC

Bhima Dwipayudhanto, Counsellor of Economic Affairs

OPENING REMARKS:

Petitioners (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
Respondents (**Susan G. Esserman**, Steptoe & Johnson LLP)

In Support of the Imposition of Antidumping Duty Orders:

Kelley Drye & Warren LLP
Washington, DC
on behalf of

DAK Americas LLC
Indorma Ventures USA, Inc.
M&G Polymers USA, LLC
Nan Ya Plastics Corporation, America

Jon McNaull, Vice President, PET Resin, DAK Americas LLC

In Support of the Imposition of
Antidumping Duty Orders (continued):

Muthukumar Paramasivam, Senior Vice President and Head of Sales and Marketing, Indorma Ventures USA, Inc.

John Freeman, Assistant Director of Sales, Nan Ya Plastics Corporation, America

Fred Fournier, Executive Director, Global Marketing and Sales, M&G Ploymers USA, LLC

John Cullen, Director, PET Resin Sales, DAK Americas LLC

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

Paul C. Rosenthal)
Kathleen W. Cannon)
) – OF COUNSEL
David C. Smith)
Brooke M. Ringel)

In Opposition to the Imposition of
Antidumping Duty Orders:

Steptoe & Johnson LLP
Washington, DC
on behalf of

Graham Packaging Company

Steve Ream, Senior Director Global Sourcing – Resins, Graham Packaging Company

Susan G. Esserman)
) – OF COUNSEL
Joel D. Kaufman)

Drinker Biddle & Reath LLP
Washington, DC
on behalf of

Companhia Integrada Têxtil de Pernambuco (“CITEPE”)

Douglas J. Heffner) – OF COUNSEL

In Opposition to the Imposition of
Antidumping Duty Orders (continued):

Neville Peterson LLP
New York, NY
on behalf of

Niagara Bottling

Shawn Safieddin, Vice President of Procurement

Ankita Pattel, Associate Corporate Counsel

Pamela Anderson, Vice President of Legal Affairs

John M. Peterson) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

Petitioners (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
Respondents (**Joel D. Kaufman**, Steptoe & Johnson LLP)

-END-

APPENDIX C

SUMMARY DATA

Table C-1
PET resin: Summary data concerning the U.S. market, 2014-16, January to June 2016, and January to June 2017
(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 June		Calendar year			Jan-Jun
	2014	2015	2016	2016	2017	2014-16	2014-15	2015-16	2016-17
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Brazil	***	***	***	***	***	***	***	***	***
Indonesia	***	***	***	***	***	***	***	***	***
Korea	***	***	***	***	***	***	***	***	***
Pakistan	***	***	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***	***	***
Subject sources	***	***	***	***	***	***	***	***	***
Canada	***	***	***	***	***	***	***	***	***
Mexico	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Brazil	***	***	***	***	***	***	***	***	***
Indonesia	***	***	***	***	***	***	***	***	***
Korea	***	***	***	***	***	***	***	***	***
Pakistan	***	***	***	***	***	***	***	***	***
Taiwan	***	***	***	***	***	***	***	***	***
Subject sources	***	***	***	***	***	***	***	***	***
Canada	***	***	***	***	***	***	***	***	***
Mexico	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. importers' U.S. shipments from:									
Brazil:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Indonesia:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Korea:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Pakistan:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Taiwan:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Subject sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Canada:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Mexico:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All other sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***

Table continued on next page.

Table C-1--Continued
PET resin: Summary data concerning the U.S. market, 2014-16, January to June 2016, and January to June 2017
(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 June		Calendar year			Jan-Jun
	2014	2015	2016	2016	2017	2014-16	2014-15	2015-16	2016-17
U.S. producers':									
Average capacity quantity	6,541,065	6,550,082	6,587,961	3,293,980	3,293,980	0.7	0.1	0.6	---
Production quantity	5,357,910	5,609,164	5,871,344	2,842,018	2,655,086	9.6	4.7	4.7	(6.6)
Capacity utilization (fn1)	81.9	85.6	89.1	86.3	80.6	7.2	3.7	3.5	(5.7)
U.S. shipments:									
Quantity	5,126,103	5,369,453	5,462,433	2,749,054	2,680,184	6.6	4.7	1.7	(2.5)
Value	3,616,987	3,141,521	2,816,592	1,413,032	1,409,671	(22.1)	(13.1)	(10.3)	(0.2)
Unit value	$0.71	$0.59	$0.52	$0.51	$0.53	(26.9)	(17.1)	(11.9)	2.3
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	989	889	886	875	891	(10.4)	(10.1)	(0.3)	1.8
Hours worked (1,000s)	2,183	1,865	1,959	987	1,011	(10.3)	(14.6)	5.0	2.4
Wages paid ($1,000)	73,373	70,798	68,629	37,478	32,819	(6.5)	(3.5)	(3.1)	(12.4)
Hourly wages (dollars)	$33.61	$37.96	$35.03	$37.97	$32.46	4.2	12.9	(7.7)	(14.5)
Productivity (pounds per hour)	2,454.4	3,007.6	2,997.1	2,879.5	2,626.2	22.1	22.5	(0.3)	(8.8)
Unit labor costs (dollars per 1,000 pounds)	$13.69	$12.62	$11.69	$13.19	$12.36	(14.6)	(7.8)	(7.4)	(6.3)
Net sales:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***
Unit net income or (loss)	***	***	***	***	***	***	***	***	***
COGS/sales (fn1)	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***
Net income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined, or too large to be meaningful.

Source: Compiled from data submitted in response to Commission questionnaires and supplemented with data from ***, accessed October 18, 2017.

APPENDIX D

OFFICIAL U.S. IMPORT STATISTICS

Table D-1
PET resin: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Quantity (1,000 pounds)				
U.S. imports from.--					
Brazil	3	34,721	128,743	90,289	167,142
Indonesia	49,310	44,160	78,088	33,156	55,561
Korea	3,334	19,244	57,614	24,566	111,542
Pakistan	29,326	41,386	81,057	22,069	72,706
Taiwan	65,992	132,620	254,252	111,477	148,649
Subject sources	147,966	272,131	599,754	281,557	555,601
Canada	307,992	290,666	181,363	101,504	123,266
Mexico	384,706	414,995	544,759	265,776	346,917
All other sources	450,665	327,138	178,101	105,397	87,153
Nonsubject sources	1,143,363	1,032,799	904,222	472,677	557,336
All import sources	1,291,328	1,304,930	1,503,977	754,234	1,112,936
	Value (1,000 dollars)				
U.S. imports from.--					
Brazil	2	18,206	55,738	38,721	96,999
Indonesia	40,060	25,233	41,178	17,528	32,983
Korea	2,183	9,439	26,366	11,192	65,571
Pakistan	19,211	20,827	36,067	9,907	34,992
Taiwan	49,006	75,654	122,908	54,221	78,989
Subject sources	110,462	149,360	282,258	131,569	309,533
Canada	240,431	175,183	85,873	47,158	59,087
Mexico	278,741	233,430	272,652	133,548	178,018
All other sources	237,132	175,027	83,099	48,646	41,339
Nonsubject sources	756,304	583,641	441,624	229,352	278,444
All import sources	866,766	733,000	723,881	360,922	587,978

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Table D-1--Continued
PET resin: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Unit value (dollars per pound)				
U.S. imports from.--					
Brazil	0.98	0.52	0.43	0.43	0.58
Indonesia	0.81	0.57	0.53	0.53	0.59
Korea	0.65	0.49	0.46	0.46	0.59
Pakistan	0.66	0.50	0.44	0.45	0.48
Taiwan	0.74	0.57	0.48	0.49	0.53
Subject sources	0.75	0.55	0.47	0.47	0.56
Canada	0.78	0.60	0.47	0.46	0.48
Mexico	0.72	0.56	0.50	0.50	0.51
All other sources	0.53	0.54	0.47	0.46	0.47
Nonsubject sources	0.66	0.57	0.49	0.49	0.50
All import sources	0.67	0.56	0.48	0.48	0.53
	Share of quantity (percent)				
U.S. imports from.--					
Brazil	0.0	2.7	8.6	12.0	15.0
Indonesia	3.8	3.4	5.2	4.4	5.0
Korea	0.3	1.5	3.8	3.3	10.0
Pakistan	2.3	3.2	5.4	2.9	6.5
Taiwan	5.1	10.2	16.9	14.8	13.4
Subject sources	11.5	20.9	39.9	37.3	49.9
Canada	23.9	22.3	12.1	13.5	11.1
Mexico	29.8	31.8	36.2	35.2	31.2
All other sources	34.9	25.1	11.8	14.0	7.8
Nonsubject sources	88.5	79.1	60.1	62.7	50.1
All import sources	100.0	100.0	100.0	100.0	100.0

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Table D-1--Continued
PET Resin: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017

Item	Calendar year			January to June	
	2014	2015	2016	2016	2017
	Share of value (percent)				
U.S. imports from.--					
Brazil	0.0	2.5	7.7	10.7	16.5
Indonesia	4.6	3.4	5.7	4.9	5.6
Korea	0.3	1.3	3.6	3.1	11.2
Pakistan	2.2	2.8	5.0	2.7	6.0
Taiwan	5.7	10.3	17.0	15.0	13.4
Subject sources	12.7	20.4	39.0	36.5	52.6
Canada	27.7	23.9	11.9	13.1	10.0
Mexico	32.2	31.8	37.7	37.0	30.3
All other sources	27.4	23.9	11.5	13.5	7.0
Nonsubject sources	87.3	79.6	61.0	63.5	47.4
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--					
Brazil	0.0	0.6	2.2	3.2	6.3
Indonesia	0.9	0.8	1.3	1.2	2.1
Korea	0.1	0.3	1.0	0.9	4.2
Pakistan	0.5	0.7	1.4	0.8	2.7
Taiwan	1.2	2.4	4.3	3.9	5.6
Subject sources	2.8	4.9	10.2	9.9	20.9
Canada	5.7	5.2	3.1	3.6	4.6
Mexico	7.2	7.4	9.3	9.4	13.1
All other sources	8.4	5.8	3.0	3.7	3.3
Nonsubject sources	21.3	18.4	15.4	16.6	21.0
All import sources	24.1	23.3	25.6	26.5	41.9

Note – Shares and ratios shown as “0.0” represent values greater than zero, but less than “0.05” percent.

Source: Official U.S. import statistics using HTS statistical reporting numbers 3907.60.0030, 3907.61.0000, and 3907.69.0000, accessed October 7, 2017

APPENDIX E

NONSUBJECT COUNTRY PRICE DATA

Three importers reported price data for Canada and two importers for products from Mexico; pricing data were reported for both countries for all four pricing products. Price data reported by these firms accounted for 100 percent of U.S. commercial shipments from Canada and 96.7 percent of U.S. commercial shipments from Mexico. These price items and accompanying data are comparable to those presented in tables V-3 to V-6. Price and quantity data for Canada and Mexico are shown in tables E-1 to E-4 and in figures E-1 to E-4 (with domestic and subject sources).

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Canada were lower than prices for U.S.-produced product in 15 instances and higher in 24 instances, while prices for product imported from Mexico were lower than prices for U.S.-produced product in 21 instances and higher in 34 instances. In comparing nonsubject country pricing data with subject country pricing data, prices for product imported from Canada and Mexico combined were lower than prices for product imported from subject countries in 120 instances and higher in 222 instances. A summary of price differentials is presented in table E-5.

Table E-1

PET resin: Weighted-average f.o.b. prices and quantities of imported product 1,[1] by quarters, January 2014-June 2017

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Table E-2

PET resin: Weighted-average f.o.b. prices and quantities of imported product 2,[1] by quarters, January 2014-June 2017

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Table E-3

PET resin: Weighted-average f.o.b. prices and quantities of imported product 3,[1] by quarters, January 2014-June 2017

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Table E-4

PET resin: Weighted-average f.o.b. prices and quantities of imported product 4,[1] by quarters, January 2014-June 2017

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Figure E-1

PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 1,[1] by quarters, January 2014-June 2017

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Figure E-2

PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 2,[1] by quarters, January 2014-June 2017

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Figure E-3

PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 3,[1] by quarters, January 2014-June 2017

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Figure E-4

PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 4,[1] by quarters, January 2014-June 2017

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Table E-5

PET resin: Summary of underselling/(overselling), by country, January 2014-June 2017

Comparison	Total number of comparisons	Nonsubject lower than the comparison source		Nonsubject higher than the comparison source	
		Number of quarters	Quantity (pounds)	Number of quarters	Quantity (pounds)
Nonsubject vs United States:					
Canada vs. United States	39	15	146,498,551	24	286,509,861
Mexico vs. United States	55	21	716,956,539	34	833,158,785
Nonsubject vs subject countries:					
Canada vs. Brazil	21	9	42,981,243	12	32,398,197
Canada vs. Indonesia	9	8	36,059,396	1	17,489,314
Canada vs. Korea	11	2	1,821,489	9	29,958,837
Canada vs. Pakistan	31	9	35,212,486	22	345,730,118
Canada vs. Taiwan	22	4	7,221,053	18	152,695,378
Mexico vs. Brazil	37	16	495,814,572	21	377,850,222
Mexico vs. Indonesia	17	11	380,991,256	6	427,960,283
Mexico vs. Korea	20	3	57,309,165	17	221,396,219
Mexico vs. Pakistan	43	9	84,771,015	34	1,391,275,980
Mexico vs. Taiwan	37	13	258,216,279	24	395,504,693

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