

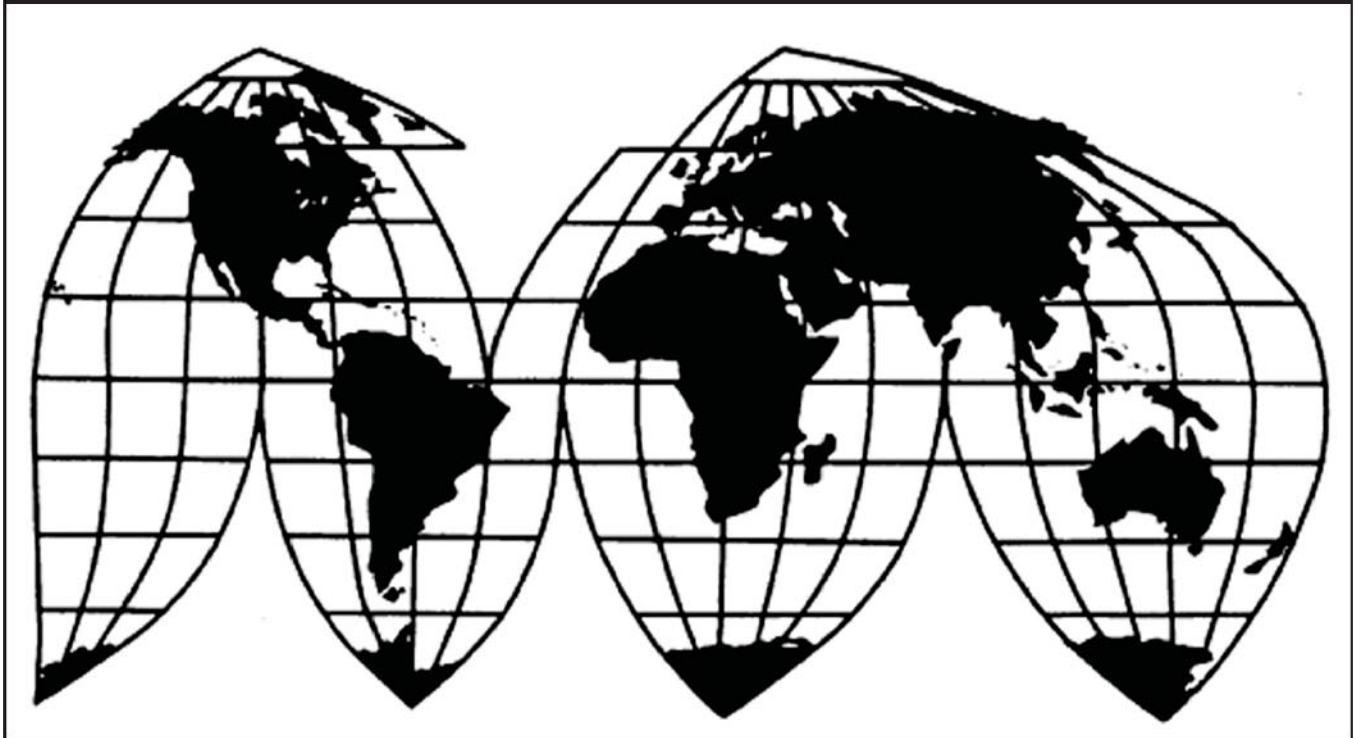
Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman

Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final)

Publication 4604

April 2016

U.S. International Trade Commission



Washington, DC 20436

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CONTENTS

	Page
Determinations	1
Views of the Commission	3
Separate views of Commissioner F. Scott Kieff on cross-cumulation.....	35
Part I: Introduction	I-1
Background.....	I-1
Statutory criteria and organization of the report	I-2
Statutory criteria	I-2
Organization of report.....	I-3
Market summary	I-3
Summary data and data sources.....	I-4
Previous and related investigations	I-4
Nature and extent of subsidies and sales at LTFV	I-5
Subsidies	I-5
Sales at LTFV	I-6
The subject merchandise	I-7
Commerce's scope	I-7
Tariff treatment	I-7
The product	I-9
Description and applications	I-9
Manufacturing processes	I-11
Domestic like product issues.....	I-12
Part II: Conditions of competition in the U.S. market.....	II-1
U.S. market characteristics.....	II-1
U.S. purchasers.....	II-1
Channels of distribution	II-2
Geographic distribution	II-2
Supply and demand considerations	II-4
U.S. supply	II-4

CONTENTS

	Page
U.S. demand	II-11
Substitutability issues.....	II-16
Lead times	II-16
Knowledge of country sources	II-16
Factors affecting purchasing decisions.....	II-17
Comparisons of domestic products, subject imports, and nonsubject imports	II-22
Comparison of U.S.-produced and imported PET resin	II-25
Elasticity estimates.....	II-29
U.S. supply elasticity.....	II-29
U.S. demand elasticity	II-29
Substitution elasticity	II-29
Part III: U.S. producers' production, shipments, and employment.....	III-1
U.S. producers	III-1
U.S. production, capacity, and capacity utilization	III-3
U.S. producers' U.S. shipments and exports.....	III-6
U.S. producers' inventories	III-8
U.S. producers' imports and purchases	III-8
U.S. employment, wages, and productivity	III-9
Part IV: U.S. imports, apparent U.S. consumption, and market shares	IV-1
U.S. importers.....	IV-1
U.S. imports	IV-3
Critical circumstances.....	IV-6
Negligibility.....	IV-8
Cumulation considerations	IV-8
Presence in the market	IV-9
Geographical markets	IV-10
Apparent U.S. consumption	IV-12
U.S. market shares	IV-14

CONTENTS

	Page
Part V: Pricing data	V-1
Factors affecting prices	V-1
Raw Materials	V-1
Transportation costs to the U.S. market	V-2
U.S. inland transportation costs	V-2
Pricing practices	V-3
Pricing methods	V-3
Sales terms and discounts	V-5
Price leadership	V-5
Price data	V-5
Direct imports (purchase cost)	V-8
Price trends	V-8
Price comparisons	V-9
Average selling price by mode of packaging	V-10
Lost sales and lost revenue	V-10
Part VI: Financial experience of U.S. producers.....	VI-1
Introduction.....	VI-1
Operations on PET resin	VI-1
Variance analysis	VI-3
Capital expenditures, research and development expenses, total assets, and return on assets	VI-3
Capital and investment.....	VI-4

CONTENTS

	Page
Part VII: Threat considerations and information on nonsubject countries	VII-1
The industry in Canada.....	VII-3
The industry in China.....	VII-5
The industry in India.....	VII-8
The industry in Oman	VII-11
Combined data for the industries in the subject countries	VII-14
U.S. inventories of imported merchandise	VII-14
U.S. importers' outstanding orders.....	VII-14
Antidumping or countervailing duty orders in third-country markets	VII-15
Information on nonsubject countries	VII-15
Appendixes	
A. <i>Federal Register</i> notices	A-1
B. Reserved for list of hearing witnesses.....	B-1
C. Summary data	C-1
D. Price data from 2012-14 including preliminary-phase pricing from data from ***	D-1
E. Nonsubject country price data	E-1
F. Lost sales and lost revenue allegations from the preliminary phase of the investigations.....	F-1
G. Results of operations of U.S. producers – raw materials from related sources reported at cost.....	G-1
H. Questionnaire responses of U.S. producers regarding the effects of raw material prices on reported profitability	H-1
I. Questionnaire responses of U.S. producers regarding actual and anticipated negative effects of subject imports.....	I-1

Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore have been deleted. Such deletions are indicated by astericks.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final)

Polyethylene Terephthalate Resin from Canada, China, India, and Oman

DETERMINATIONS

On the basis of the record¹ developed in the subject investigations, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that an industry in the United States is materially injured by reason of imports of polyethylene terephthalate (“PET”) resin, provided for in subheading 3907.60.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (“Commerce”) to be sold in the United States at less than fair value (“LTFV”) with respect to Canada, China, India, and Oman and have been found by Commerce to be subsidized by the governments of China and India.²

BACKGROUND

The Commission, pursuant to sections 705(b) and 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1671d(b) and 19 U.S.C. § 1673d(b)), instituted these investigations effective March 10, 2015, following receipt of a petition filed with the Commission and Commerce by DAK Americas, LLC, Charlotte, North Carolina; M&G Chemicals, Houston, Texas; and Nan Ya Plastics Corporation, America, Lake City, South Carolina. The final phase of the investigations was scheduled by the Commission following notification of preliminary determinations by Commerce that imports of PET resin from China, India, and Oman³ were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. § 1671b(b)) and that imports of PET resin from Canada, China, India, and Oman were dumped within the meaning of 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission’s investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* on November 5, 2016 (80

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

² All six Commissioners voted in the affirmative. The Commission also finds that imports subject to Commerce’s affirmative critical circumstances determinations are not likely to undermine seriously the remedial effect of the countervailing and antidumping duty orders on PET resin from India.

³ Commerce determined that countervailable subsidies are not being provided to producers and exporters of PET resin from Oman. *Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Negative Countervailing Duty Determination*, 81 FR 13321, March 14, 2016. The Commission subsequently terminated its countervailing duty investigation with respect to Oman. *Polyethylene Terephthalate Resin from Oman; Termination of Investigation*, 81 FR 19638, April 5, 2016.

FR 68563). The hearing was held in Washington, DC, on March 1, 2016, 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 final phase of these investigations, we find that an industry in the United States is materially injured by reason of imports of certain polyethylene terephthalate resin (“PET resin”) from Canada, China, India, and Oman that are sold in the United States at less than fair value and that are subsidized by the governments of China and India.

I. Background

Three domestic producers of PET resin, DAK Americas, LLC (“DAK”); M&G Chemicals (“M&G”); and Nan Ya Plastics Corporation (“Nan Ya”) (collectively, “Petitioners”) filed the petitions in these investigations on March 10, 2015.¹ Petitioners appeared at the hearing accompanied by counsel and submitted prehearing and posthearing briefs.

The following respondents appeared at the hearing accompanied by counsel and submitted prehearing and posthearing briefs: OCTAL Petrochemical LLC FZC, a producer and exporter of the subject merchandise in Oman (“OCTAL”); Reliance Industries Limited, a producer and exporter of the subject merchandise in India (“Reliance”); and Premium Waters, Inc. (“Premium Waters”) an importer of the subject merchandise.²

U.S. industry data are based on the questionnaire responses of four producers of PET resin, accounting for all known U.S. production of PET resin during the period of investigation (“POI”) (January 2012-September 2015).³ U.S. import data are based on official Commerce import statistics for Canada, China, India, and nonsubject countries, and questionnaire data for Oman.⁴ The Commission received usable responses to its questionnaires from 22 U.S. importers of subject merchandise that accounted for over 80 percent of U.S. imports of the subject merchandise during the POI.⁵

II. Domestic Like Product and Domestic Industry

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the “domestic like product” and the “industry.”⁶ Section 771(4)(A) of the Tariff Act

¹ Confidential Report (“CR”) at I-1, Public Report (“PR”) at I-1.

² Niagara Bottling (a purchaser of PET resin) and the International Bottled Water Association (an association of bottle producers) filed statements as non-parties arguing against imposition of antidumping and countervailing duties.

³ CR/PR at III-1.

⁴ CR/PR at IV-1. Official import statistics for Oman are believed to be overstated. CR at IV-3 n.4, PR at IV-2 n.4.

⁵ CR/PR at IV-1.

⁶ 19 U.S.C. § 1677(4)(A).

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.”⁷ 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.”⁸

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis.⁹ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.¹⁰ The Commission looks for clear dividing lines among possible like products and disregards minor variations.¹¹ Although the Commission must accept Commerce’s determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,¹² the Commission determines what domestic product is like the imported articles Commerce has identified.¹³

⁷ 19 U.S.C. § 1677(4)(A).

⁸ 19 U.S.C. § 1677(10).

⁹ See, e.g., *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. See *Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).

¹⁰ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

¹¹ *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.”).

¹² See, e.g., *USEC, Inc. v. United States*, 34 Fed. Appx. 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).

¹³ *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 in which Commerce found five classes or kinds).

B. Product Description

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

{P}olyethylene terephthalate (PET) resin having an intrinsic viscosity of at least 0.70, but not more than 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 this investigation is properly classified under subheading 3907.60.00.30 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.¹⁴

PET resin is a large-volume, commodity-grade thermoplastic polyester polymer. Sold in bulk form as chips or pellets to downstream end users, PET resin within the scope of investigation is used to produce bottles and containers for liquids and food products as well as sheets, strapping, and carpeting.¹⁵ Major end-use applications for bottle-grade PET resin include soda bottles, water bottles, and other containers such as for juices, peanut butter, jams and jellies, salad dressings, cooking oils, household cleaners, and cosmetics.¹⁶ Articles manufactured with PET resin are clear, transparent, sterile, lightweight, and thermally stable.¹⁷

¹⁴ See, e.g. *Certain Polyethylene Terephthalate Resin from the People's Republic of China: Final Determination of Sales at Less Than Fair Value*, 81 Fed. Reg. 13331, 13334 (March 14, 2016); *Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India: Final Affirmative Determination and Final Affirmative Critical Circumstances Determination, in Part*, 81 Fed. Reg. 13334, 13336 (March 14, 2016).

¹⁵ CR at I-4, PR at I-3.

¹⁶ PET resin with higher viscosities than those specified in the scope is used for applications such as tire cord, certain strapping, and microwaveable containers. However, PET resin within the scope also can be used for these applications. CR at I-12, PR at I-9.

¹⁷ Packaging-grade PET resin is categorized as being either “cold-fill” or “hot-fill.” Cold-fill refers to container applications, such as for soda or water, where the substance being filled into the container does not require high temperatures during the filling process. Hot-fill refers to container applications, such as for juices or sauces, where the substance being filled into the container requires high temperatures in the filling process, analogous to a canning process. Cold-fill PET resin usually has a lower intrinsic viscosity (“IV”) range than hot-fill PET resin, but both fall within the IV range defining the product subject to these investigations. CR at I-12, PR at I-9. Viscosity, in general, refers to the resistance of a given material in liquid or molten form to shear or force under defined conditions. See CR at I-11 n.14, PR at I-9 n.14.

C. Analysis

In our preliminary determinations, we found a single domestic like product consisting of certain PET resin that was coextensive with Commerce's scope.¹⁸ We found that certain PET resin produced in the United States has the same basic chemistry and end uses. It is made from the same raw materials, using the same manufacturing facilities, production processes, and employees. It is also sold through the same channels of distribution, is largely interchangeable, and is sold at roughly comparable prices.¹⁹

The record in the final phase of these investigations does not contain any new information concerning the domestic like product factors.²⁰ Therefore, for the reasons set forth in our preliminary determinations, and because no party has argued for a different result in the final phase of these investigations, we define a single domestic like product, consisting of certain PET resin that is coextensive with Commerce's scope.

III. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."²¹ 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 also 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.²² Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.²³

¹⁸ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman*, Inv. Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary), USITC Publication 4531 (May 2015) ("USITC Pub. 4531") at 7-8.

¹⁹ USITC Pub. 4531 at 7-8.

²⁰ CR at I-11 to I-16, PR at I-9 to I-11.

²¹ 19 U.S.C. § 1677(4)(A).

²² *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).

²³ 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;
(Continued...)

*** and *** which supports the petition, are related parties because they imported subject merchandise during the POI.²⁴ Each of the related parties supports the petition. Both related parties' imports of subject merchandise were very small relative to their domestic production of PET resin and only occurred during one year of the POI.²⁵ We consequently find that each of the related parties' principal interest lies in domestic production. In view of these considerations and because no party has argued for exclusion of either related party from the domestic industry, we find that appropriate circumstances do not exist to exclude either domestic producer. Accordingly, we define the domestic industry to include all U.S. producers of PET resin.

(...Continued)

(2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);

(3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;

(4) the ratio of import shipments to U.S. production for the importing producer; and

(5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy v. USITC*, 100 F. Supp. 3d 1314, 1329 (Ct. Int'l Trade 2015); see also *Torrington*, 790 F. Supp. at 1168.

²⁴ CR/PR at Tables III-1 and III-9. *** was the largest domestic producer and was responsible for *** percent of U.S. production of PET resin during the POI. *** was the second largest domestic producer, accounting for *** percent of domestic production during the POI. CR/PR at Table III-1.

²⁵ In 2013, *** imported *** pounds of PET resin from India as a sample. CR at III-14, PR at III-8. As a ratio to its U.S. production, its subject imports were ***. CR/PR at Table III-9. *** imported *** pounds of PET resin from Canada during January–September 2015 (“interim 2015”). These imports were equivalent to *** percent of its domestic production in interim 2015. *Id.*

IV. Cumulation²⁶

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

- (1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.²⁷

²⁶ Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)). The statute further provides that subject imports from a single country which comprise less than 3 percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than 7 percent of the volume of all such merchandise imported into the United States. 19 U.S.C. § 1677(24)(A)(ii). In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative), the statute indicates that the negligibility limits are 4 percent and 9 percent, rather than 3 percent and 7 percent. 19 U.S.C. § 1677(24)(B).

Imports from each subject country exceed the statutory negligibility threshold. During March 2014-February 2015, the 12-month period prior to the filing of the petition, subject imports from Canada accounted for 23.6 percent of total imports of PET resin by quantity; subject imports from China accounted for 18.1 percent; subject imports from India accounted for 4.9 percent; and subject imports from Oman accounted for 7.5 percent. CR at IV-12, PR at IV-9.

²⁷ *See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), *aff'd*, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int'l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.²⁸ Only a “reasonable overlap” of competition is required.²⁹

The threshold requirement for cumulation is satisfied in these investigations because the petitioners filed the antidumping and countervailing duty petitions with respect to imports from Canada, China, India, and Oman on the same day, March 10, 2015.³⁰ In finding it appropriate to cumulate in these investigations, we first explain why we continue our longstanding practice of cross-cumulation (*i.e.*, cumulating dumped and subsidized imports). We next explain that there is a reasonable overlap of competition between subject imports from Canada, China, India, and Oman and between subject imports from each subject country and the domestic like product.

A. Arguments of the Parties

Petitioners argue that each of the cumulation criteria is satisfied and therefore cumulation for all subject countries is mandatory for purposes of present material injury analysis.³¹ Reliance challenges cumulation for purposes of our determination regarding present injury, asserting that competition is attenuated between PET resin from India and that produced in the United States and in other subject countries.³² Octal also asserts that PET resin from Oman lacks fungibility with PET resin from other sources due to Octal’s melt-to-resin manufacturing process and the use of rail for delivery of domestically produced PET resin. Octal also argues that subject imports from different countries compete in different channels of distribution and focus on different geographic regions.³³

B. Cross-Cumulation³⁴

Commerce made affirmative dumping findings with respect to imports from all four subject countries, but made affirmative subsidy findings only with respect to subject imports

²⁸ See, e.g., *Wieland Werke, AG v. United States*, 718 F. Supp. 50 (Ct. Int’l Trade 1989).

²⁹ The Statement of Administrative Action (SAA) to the Uruguay Round Agreements Act (URAA) expressly states that “the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition.” H.R. Rep. No. 103-316, Vol. I at 848 (1994) (*citing Fundicao Tupy, S.A. v. United States*, 678 F. Supp. at 902; see *Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int’l Trade 1998) (“cumulation does not require two products to be highly fungible”); *Wieland Werke, AG*, 718 F. Supp. at 52 (“Completely overlapping markets are not required.”)).

³⁰ None of the statutory exceptions to cumulation applies.

³¹ Petitioners’ Prehearing Brief at 14-18.

³² Reliance’s Prehearing Brief at 36-37.

³³ Octal’s Prehearing Brief at 8-10.

³⁴ Commissioner Kieff does not join this section. See Separate Views of Commissioner F. Scott Kieff on Cross-Cumulation.

from China and India.³⁵ Reliance and Octal argue that the Commission should not cross-cumulate the subsidized and dumped imports from China and India with the dumped imports from Oman and Canada, relying on the WTO Appellate Body's report in *United States – Countervailing Measures on Certain Hot-Rolled Steel Products from India*, WT/DS436/AB/R (adopted Dec. 19, 2014).^{36 37} In that report, the Appellate Body found that the Commission acted inconsistently with the WTO Agreement on Subsidies and Countervailing Measures in that investigation when it cumulated subsidized imports of hot-rolled steel from India with dumped imports of hot-rolled steel from other subject countries that were simultaneously subject to investigation but not subject to subsidy findings.³⁸ Petitioners argue that the Commission should continue its longstanding practice of cross-cumulation of dumped and subsidized imports despite the recent WTO decision cited by respondents.³⁹

We have determined that we will not change our longstanding practice in antidumping and countervailing duty investigations and reviews of cross-cumulating dumped and subsidized imports.⁴⁰ Rather, we continue to follow the binding precedential opinion of the U.S. Court of

³⁵ The petition did not make countervailing duty allegations with respect to subject imports from Canada, and Commerce found *de minimis* countervailing duties on subject imports from Oman. 81 Fed. Reg. 13321 (Mar. 14, 2016).

³⁶ Reliance's Prehearing Brief at 37-38; Octal's Posthearing Brief at 6. The Commission issued its section 129 determination in *Hot-Rolled Steel from India* on March 7, 2016. In that determination, the Commission found that an industry in the United States was materially injured by reason of subsidized imports of hot-rolled steel from India. In reaching this conclusion in the consistency determination, the Commission cumulated the subsidized subject imports from India only with other simultaneously investigated imports subject to Commerce's subsidy findings. The Commission stated that its analysis in the section 129 proceeding was "limited to issuing a determination in connection with the particular matter at issue." *Hot-Rolled Steel from India*, Inv. No. 701-TA-405 (Final) (Section 129 Consistency Determination), USITC Pub. 4599 at 5 (Mar. 2016).

³⁷ Commissioner Schmidlein notes that in *Hot-Rolled Steel from India*, (Inv. No. 701-TA-405 (Final) (Section 129 Consistency Determination), USITC Pub. 4599) she joined the Commission views with respect to cumulated subsidized imports of hot-rolled steel from India insofar as those views were considered an alternative analysis that did not disturb the original determinations.

³⁸ *United States – Countervailing Measures on Certain Hot-Rolled Steel Products from India*, WT/DS436/AB/R (adopted Dec. 19, 2014).

³⁹ Petitioners Prehearing Brief at 14-15.

⁴⁰ While Commissioner Schmidlein agrees with the decision to cross-cumulate subsidized and dumped subject imports in this case, she offers her own legal analysis. In her view, the response to Reliance and Octal's argument regarding cross-cumulation is relatively simple and straightforward. In 1987, the U.S. Court of Appeals for the Federal Circuit held that the relevant statutory provision requires that the Commission cross-cumulate subsidized and dumped imports when the requirements for cumulation are otherwise met. *Bingham & Taylor v. United States*, 815 F.2d 1482 (Fed. Cir. 1987). Legislative action subsequent to this decision reinforced and ratified that Congress intended to require cross-cumulation. Specifically, in the Uruguay Round Agreements Act, enacted December 8, 1994, although Congress did make some changes to the cumulation statute, these did not concern cross-cumulation and there is no indication in the legislative history that Congress intended to alter the approach that the Federal Circuit had interpreted to be mandated by the statute in *Bingham and Taylor*. (Continued...)

Appeals for the Federal Circuit in *Bingham & Taylor*. In that case, the Federal Circuit held that cross-cumulation was mandatory when the requirements for cumulation were otherwise met.⁴¹

We note that the URAA has reserved questions of implementation of the WTO Uruguay Round Agreements to Congress. Specifically, Section 102(a)(1) of the URAA states that “[n]o provision of any of the Uruguay Round Agreements, nor the application of any such provision to any person or circumstance, that is inconsistent with any law of the United States shall have effect.”⁴²

C. Reasonable Overlap of Competition

We next analyze the four factors pertinent to a reasonable overlap of competition.

Fungibility. The record in the final phase of these investigations indicates substantial fungibility between domestic and subject sources. All responding U.S. producers, importers, and purchasers reported that PET resin from all sources was either “always” or “frequently” interchangeable.⁴³ Purchasers were asked to compare the domestic like product and imports from each subject country with respect to 16 factors. For most comparisons of the U.S. product with imported product, a majority of responding purchasers indicated that the U.S. product and the subject imports were comparable. However, regarding ability to ship by rail, delivery time, and technical support, a majority of responding purchasers indicated that U.S.-produced PET resin was generally superior to imports from the subject countries, with the exception of Canada. Regarding comparisons among the subject imports, a majority of responding purchasers indicated that PET resin from subject sources was comparable, except that Canadian product was generally superior to imports from other subject sources in delivery time, ability to ship by rail, and technical support.⁴⁴ Most purchasers indicated that subject imports and domestically produced PET resin always or usually meet minimum quality standards.⁴⁵ When

(...Continued)

In light of the Federal Circuit’s interpretation of the statute in *Bingham and Taylor* and its subsequent ratification by Congress, in Commissioner Schmidlein’s view, the Commission is required to continue its practice of cross-cumulating subsidized and dumped imports when the requirements for cumulation are otherwise met. See *GPX Int’l Tire Corp v. United States*, 666 F.3d 732, 740 (Fed. Cir. 2011) (“Once Congress has ratified a statutory interpretation through reenactment, agencies no longer have discretion to change this interpretation.”), citing *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 144 (2000) and *Commissioner v. Engle*, 464 U.S. 206, 224-25 (1984).

⁴¹ *Bingham & Taylor v. United States*, 815 F.2d 1482 (Fed. Cir. 1987). Starting in 1987 and continuing through its recent determinations, the Commission has cross-cumulated based on the holding in *Bingham & Taylor*. See, e.g., *Industrial Phosphoric Acid from Belgium and Israel*, Inv. Nos. 701-TA-286 and 731-TA-365 and 366 (Final), USITC Pub. 2000 at 17 n.69 (Aug. 1987); *Certain New Pneumatic Off-the-Road Tires from China, India, and Sri Lanka*, Inv. Nos. 701-TA-551-553 and 731-TA-1307-1308 (Preliminary), USITC Pub. 4594 at 25 n.98 (Mar. 2016).

⁴² 19 U.S.C. § 3512(a)(1). See also SAA at 1032.

⁴³ CR/PR at Table II-9.

⁴⁴ See CR/PR at Table II-8.

⁴⁵ See CR/PR at Table II-10

asked whether differences other than price are ever significant in choosing between PET resin from different sources, all domestic producers and a majority of importers and purchasers answered that non-price differences were only “sometimes” or “never” important.⁴⁶

With respect to methods of delivery, domestic PET resin and subject imports from *** were primarily delivered by rail while subject imports from *** were generally delivered by truck.⁴⁷ Notwithstanding this distinction, purchasers’ questionnaire responses did not support respondents’ contention that lack of access to rail is a significant barrier to subject imports from India or Oman competing in the U.S. PET resin market. Purchasers generally accepted delivery by multiple means of transportation, and only a minority of purchasers (4 of 18) indicated that they preferred rail.⁴⁸ Moreover, a substantial quantity of shipments of the domestic like product were made by truck, indicating competition between the domestic like product and subject imports from India and Oman for purchasers using this method of shipment.⁴⁹ Indeed, the widespread availability of imports from all subject countries in the United States (discussed below) indicates that lack of access to rail does not significantly impede the ability of imports from any subject country to compete in the U.S. market.

Finally, while Reliance claims that subject imports from India are not present in the hot-fill portion of the market, we do not find that this substantially limits fungibility between subject imports from India and PET resin from other sources. Subject imports from India are present in segments of the market accounting for over *** percent of domestic producers’ production and shipments in 2015.⁵⁰ They were sold along with imports from other subject countries in the larger cold-fill segment of the market, as well as other segments, that account for the majority of the U.S. market.⁵¹

We therefore find there is sufficient fungibility between and among subject imports from each subject country and the domestic like product to satisfy the “reasonable overlap” standard.

Channels of Distribution. Most domestically produced PET resin and most subject imports were sold to end users, with a smaller but still substantial volume of shipments to distributors as well.⁵² There also was substantial variation by subject country with respect to

⁴⁶ CR/PR at Table II-11.

⁴⁷ CR at II-36, PR at II-21; CR/PR at Tables III-7 & IV-7.

⁴⁸ When purchasers were asked if their firms had the capacity to have their PET resin purchases delivered by rail car, ten answered that they did, and eight answered that they could not accept delivery by rail. CR at II-37, PR at II-21. Fifteen purchasers indicated that they could receive PET resin by multiple methods of delivery, and only three indicated that they could not. CR at II-38, PR at II-21. Finally, four purchasers indicated that they preferred rail. *Id.*

⁴⁹ CR at III-12, PR at III-7.

⁵⁰ See CR/PR at Tables II-1 and III-5 (hot-fill is approximately *** percent of domestic producers’ production and shipments). We also note that irrespective of ***, the producers from India that responded to the Commission’s foreign producer questionnaire reported production of modest quantities of hot-fill PET resin. CR/PR at Table VII-12.

⁵¹ See CR/PR at Table II-1.

⁵² CR/PR at Table II-1.

the type of end user.⁵³ Subject imports from Canada were more concentrated in the carpeting segment of the U.S. market, but they were also sold to bottlers and to sheet, strapping, and packaging producers.⁵⁴ Subject imports from each subject country and the domestic like product were all present in the sheet, packaging, and strapping segment to varying degrees.⁵⁵

Further, despite some differences in end uses, market participants indicated that PET resin from domestic sources and PET resin from subject sources compete across end uses.⁵⁶ The viscosity ranges for different end uses overlap considerably, suggesting that the same PET resin can be sold and used for different end uses.⁵⁷ The subject imports also shifted their sales between different segments of the market, suggesting that subject imports were competing across market segments for sales to multiple types of end users.⁵⁸

Geographic Overlap. All responding U.S. producers reported selling PET resin to all regions in the contiguous United States, as did importers from all subject countries, with the exception of importers of ***.⁵⁹ Purchasers generally reported that PET resin from the United States, subject countries, and other sources was available in their firms' geographic region.⁶⁰ The record consequently does not support Octal's argument that there is a lack of geographic overlap between subject imports from Oman and those from other sources.

Simultaneous Presence in Market. Subject imports from Canada, China, India, and Oman were present in all 45 months of the POI, as was the domestic like product.⁶¹ This indicates that subject imports from all subject sources and the domestic like product were simultaneously present in the market.

Conclusion. The record indicates that there is a reasonable overlap of competition between and among imports from all four subject countries and the domestic like product,

⁵³ CR/PR at Table II-1.

⁵⁴ See CR/PR at Table II-1.

⁵⁵ See CR/PR at Table II-1.

⁵⁶ CR at II-22 to II-23, PR at II-12. *** domestic producers indicated that PET resin from domestic and subject producers competes with their PET resin in all end uses. Among the 22 responding importers, 11 indicated that U.S.-produced PET resin does, 10 indicated that Canadian PET resin does, 10 indicated that Chinese PET resin does, 11 indicated that Indian PET resin does, and 8 indicated that Omani PET resin does. Fifteen of the 18 responding purchasers indicated that they had been offered domestically produced PET resin for their end uses, and 10 reported being offered PET resin from at least one of the four subject countries.

⁵⁷ Tr. at 31 (Freeman). See Tr. at 32 (Freeman) (viscosities of PET resin for different end uses fall within a fairly narrow range); Tr. at 33 (Freeman) (Nan Ya's PET resin was sold for hot-and cold-fill applications).

⁵⁸ See CR/PR at Table II-1. For example, *** percent of U.S. shipments of subject imports from India went to *** producers in 2014, while only *** percent of shipments of subject imports from India went to *** and *** percent went to *** in 2015. *Id.*

⁵⁹ CR/PR at Table II-2. Subject imports from India were not sold in the Mountain region. Importers reported selling ***. *Id.*

⁶⁰ Seventeen of the 18 reporting purchasers stated that U.S. product was available in their geographic region, 16 stated that Canadian product was, 14 stated that Chinese product was, 14 stated that Indian product was, and 15 stated that Omani product was available. CR at II-9, PR at II-4.

⁶¹ CR at IV-9, IV-14, , PR at IV-8 and IV 10 to 11; CR/PR at Table IV-5.

notwithstanding respondents' contrary arguments. We accordingly cumulate subject imports from Canada, China, India, and Oman in making our analysis of material injury by reason of subject imports.

V. Material Injury by Reason of Subject Imports

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.⁶² 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.⁶³ The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."⁶⁴ In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.⁶⁵ 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."⁶⁶

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,⁶⁷ 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.⁶⁸ 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

⁶² 19 U.S.C. §§ 1671d(b), 1673d(b). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provision of the Tariff Act pertaining to Commission determinations of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments in these investigations.

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

⁶⁴ 19 U.S.C. § 1677(7)(A).

⁶⁵ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁶ 19 U.S.C. § 1677(7)(C)(iii).

⁶⁷ 19 U.S.C. §§ 1671d(a), 1673d(a).

⁶⁸ *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.⁶⁹

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.⁷⁰ In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.⁷¹ Nor does the

⁶⁹ The Federal Circuit, in addressing the causation standard of the statute, observed that “{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred ‘by reason of’ the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.’” See also *Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass’n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

⁷⁰ 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.

⁷¹ 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.⁷² It is clear that the existence of injury caused by other factors does not compel a negative determination.⁷³

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.”^{74 75} Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁷⁶

(...Continued)

tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

⁷² S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

⁷³ See *Nippon Steel Corp.*, 345 F.3d at 1381 (“an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the ‘dumping’ need not be the sole or principal cause of injury.”).

⁷⁴ *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 *Swift-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*.

⁷⁵ Vice Chairman Pinkert and Commissioner Kieff do not join this paragraph or the following three paragraphs. They point out that the Federal Circuit, in *Bratsk*, 444 F.3d 1369, and *Mittal Steel*, held that the Commission is *required*, in certain circumstances when analyzing present material injury, to consider a particular issue with respect to the role of nonsubject imports, without reliance upon presumptions or rigid formulas. The Court has not prescribed a specific method of exposition for this consideration. *Mittal Steel* explains as follows:

What *Bratsk* held is that “where commodity products are at issue and fairly traded, price competitive, non-subject imports are in the market,” the Commission would not fulfill its obligation to consider an important aspect of the problem if it failed to consider whether non-subject or non-LTFV imports would have replaced LTFV subject imports during the period of investigation without a continuing benefit to the domestic industry. 444 F.3d at 1369. Under those circumstances, *Bratsk* requires the Commission to consider whether replacement of the LTFV subject imports might have occurred during the period of investigation, and it requires the Commission to provide an explanation of its conclusion with respect to that factor.

542 F.3d at 878.

⁷⁶ *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.”).

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk*, and *Mittal Steel* all involved cases where 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.⁷⁷ 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 requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.⁷⁸ 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.⁷⁹

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.⁸⁰ Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.⁸¹

⁷⁷ *Mittal Steel*, 542 F.3d at 875-79.

⁷⁸ *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).

⁷⁹ 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.

⁸⁰ We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

⁸¹ *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp.*, 458 F.3d at 1350, citing *U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

B. Conditions of Competition and the Business Cycle

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

1. Demand Considerations

U.S. demand for PET resin depends on the demand for the U.S. products made from PET resin.⁸² These products include bottles for soft drinks and other beverages, sheets used for making clam shell containers in which items such as fruits are packaged, carpeting, and strapping used on bulk substances such as lumber. PET resin's largest end use is the manufacture of beverage bottles.⁸³ Demand over the POI shifted somewhat, as there was decreased consumption of soft drink bottles but increased demand for water bottles and carpeting.⁸⁴ A trend toward lighter-weight water bottles initially decreased demand for PET resin, but may have led to increased consumption of water bottles.⁸⁵

Most U.S. producers, importers, and purchasers indicated in their questionnaire responses that demand for PET resin has increased since January 1, 2012.⁸⁶ The apparent U.S. consumption data collected by the Commission corroborate this view. As measured by quantity, apparent U.S. consumption of PET resin increased by *** percent from 2012 to 2014, increasing from *** pounds in 2012 to *** pounds in 2013 and *** pounds in 2014.⁸⁷ Apparent U.S. consumption was *** percent higher in interim 2015, at *** pounds, than in interim 2014, at *** pounds.⁸⁸

2. Supply Considerations

During the POI, the U.S. market was supplied by the domestic industry, subject imports, and nonsubject imports. The domestic industry remained the largest supplier to the U.S. market, but its market share fell steadily from 2012 to 2014.⁸⁹ Cumulated subject import market share increased from 2012 to 2014, and subject imports accounted for the largest share of all imports in 2013 and 2014.⁹⁰ Nonsubject import market share fluctuated during the POI.⁹¹

⁸² CR at II-21, PR at II-11.

⁸³ CR/PR at II-1.

⁸⁴ Tr. at 57 (Adlam & McNaul); CR at II-27.

⁸⁵ Tr. at 56-57 (Adlam).

⁸⁶ CR/PR at Table II-3; CR at II-27, PR at II-15.

⁸⁷ CR/PR at Tables IV-9 & C-1.

⁸⁸ CR/PR at Tables IV-9 & C-1.

⁸⁹ As measured by quantity, U.S. producers' market share declined from *** percent in 2012 to *** percent in 2013 and *** percent in 2014. CR/PR at Table IV-10. It was *** percent in interim 2014 and *** percent in interim 2015. *Id.*

⁹⁰ As measured by quantity, cumulated subject import market share increased from *** percent in 2012 to *** percent in 2013 and *** percent in 2014. CR/PR at Table IV-10. It was *** percent in interim 2014 and *** percent in interim 2015. *Id.*

Mexico was by far the largest source of nonsubject imports during the period, with M&G's imports from its affiliated company in Mexico accounting for most of those imports.⁹² All four of the domestic producers are affiliated with foreign producers of PET resin.⁹³

The production of PET resin is capital intensive, and producers try to maintain high operating rates to spread their costs and maximize efficiency.⁹⁴ The domestic industry shuttered production at two facilities during the POI.⁹⁵ In 2013, DAK closed a production facility in Cape Fear, North Carolina.⁹⁶ ***.⁹⁷ M&G is currently constructing a PET resin plant in Corpus Christi, Texas, and plans to begin operations there in the third quarter of 2016.⁹⁸ The total cost of this project is over \$800 million, with 1.1 million tons a year of PET capacity and 1.3 million tons a year of purified terephthalic acid ("PTA") capacity.⁹⁹ ***.¹⁰⁰

3. Substitutability and Other Conditions

There is a moderate to high degree of substitutability between the domestic like product and cumulated subject imports.¹⁰¹ Most responding domestic producers, importers, and purchasers reported that product from all countries was either "always" or "frequently" interchangeable.¹⁰² We also find that price is an important consideration for purchasers of PET resin. Purchasers most frequently cited price as the top purchasing factor, and all 18 purchasers reported that price was a "very important" purchasing factor.¹⁰³ Non-price factors were reported as being less important in purchasing decisions. When asked whether differences other than price are ever significant in their sales in choosing between PET resin from different sources, all domestic producers and a majority of importers and purchasers answered that non-price differences were "sometimes" or "never" important.¹⁰⁴

Raw material costs accounted for approximately 90 percent of the cost of goods sold ("COGS") during the POI.¹⁰⁵ Two raw materials, PTA and monoethylene glycol ("MEG"),

(...Continued)

⁹¹ As measured by quantity, nonsubject import market share was *** percent in 2012, *** percent in 2013, and *** percent in 2014. CR/PR at Table IV-10. It was *** percent in interim 2014 and *** percent in interim 2015. *Id.*

⁹² CR/PR at Tables III-10 & IV-3.

⁹³ See CR/PR at Table III-2.

⁹⁴ Tr. at 28, 34 (McNaul).

⁹⁵ CR/PR at Table III-3.

⁹⁶ CR at III-6, PR at III-3.

⁹⁷ CR/PR at Table III-3

⁹⁸ CR at III-4; Petitioners' Prehearing Brief, Exhibit 4 (January 20, 2016 Press Release).

⁹⁹ CR at III-4, PR at III-3.

¹⁰⁰ CR at III-4 to III-6, PR at III-3.

¹⁰¹ CR at II-30, PR at II-16.

¹⁰² CR/PR at Table II-9.

¹⁰³ CR/PR at Table II-6.

¹⁰⁴ CR/PR at Table II-11.

¹⁰⁵ CR/PR at V-1.

historically account for over 75 percent of the cost of producing PET resin.¹⁰⁶ Prices of both PTA and MEG declined significantly during the POI. PTA prices fell by *** percent, and MEG prices fell by *** percent. Much of this decline occurred after August 2014, when global oil prices began to fall.¹⁰⁷

There were disruptions in the supply of raw materials used in the production of PET resin during the POI. In August 2014, a PTA production unit in South Carolina was shut down due to a fire, thus reducing the availability of PTA in the United States. Further, a producer in Flint Hills, Michigan of the raw material isophthalic acid, an upstream input used in the production of PTA, lost a cooling tower due to cold temperatures, which resulted in a three- to four-month shutdown.¹⁰⁸ However, witnesses from domestic producers indicated that these disruptions did not translate into shortages of PET resin in the U.S. market.¹⁰⁹

Domestic producers generally sell PET resin under long-term or annual contracts, while importers more often enter into short-term or annual contracts.¹¹⁰ Domestic producers reported setting prices based on ***.¹¹¹ The domestic producers also indicated that their sales contracts are indexed to raw material prices.¹¹²

PET resin is delivered to customers by rail and truck. Domestically produced PET resin and subject imports from Canada are more often delivered by rail than PET resin from other sources.¹¹³ However, only four purchasers indicated a preference for rail, and not all customers can receive shipments by rail.¹¹⁴

Large purchasers have also switched to direct importation of PET resin during the POI.¹¹⁵ They explained that they gained a cost advantage by importing directly and thereby avoided the importer's markup.¹¹⁶ A substantial portion of the subject imports from India were directly imported during the POI.¹¹⁷

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."¹¹⁸

¹⁰⁶ CR/PR at V-1.

¹⁰⁷ CR/PR at V-1.

¹⁰⁸ CR at III-9, PR at III-6.

¹⁰⁹ Tr. at 28, 42 (McNaull & Cullen) (indicating no supply shortages in the domestic market).

¹¹⁰ CR/PR at Table V-2.

¹¹¹ CR at V-7, PR at V-4.

¹¹² CR at V-7, PR at V-4; Tr. at 127 (Adlam).

¹¹³ See CR/PR at Tables III-7 and IV-7.

¹¹⁴ CR at II-38, PR at II-21. A domestic industry witness indicated that purchasers have invested in the equipment to receive PET resin by multiple methods of delivery. Tr. at 63, 68 (Cullen).

¹¹⁵ Tr. at 43 (Cullen).

¹¹⁶ CR/PR at Table V-10.

¹¹⁷ CR at V-12, PR at V-6.

¹¹⁸ 19 U.S.C. § 1677(7)(C)(i).

The volume of cumulated subject imports increased *** percent from 2012 to 2014.¹¹⁹ Cumulated subject imports increased from *** pounds in 2012 to *** pounds in 2013 and *** pounds in 2014.¹²⁰ Cumulated subject imports were *** pounds in interim 2014 and *** pounds in interim 2015.¹²¹ On a quantity basis, the market share of cumulated subject imports increased from *** percent in 2012 to *** percent in 2013 and *** percent in 2014; their share was *** percent in interim 2014 and *** percent in interim 2015.¹²²

The *** percentage points of market share that the cumulated subject imports gained from 2012 to 2014 came entirely at the expense of the domestic industry.¹²³ The domestic industry's market share (on a quantity basis) was *** percentage points lower in 2014 than in 2012.¹²⁴

We find that the volume and increase in volume of cumulated subject imports 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 the subject imports, the Commission shall consider whether

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

¹¹⁹ CR/PR at Tables IV-9 and C-1.

¹²⁰ CR/PR at Table IV-9.

¹²¹ CR/PR at Table IV-9.

¹²² CR/PR at Table IV-10. We have considered whether to reduce the weight accorded to post-petition information concerning the impact of the subject imports on the condition of the domestic industry pursuant to 19 U.S.C. § 1677(7)(I). There was a decline in cumulated subject import volume in interim 2015 relative to interim 2014. See Petitioners' Prehearing Brief at 33 (decline in subject imports after first half of 2015). This decline in volume followed the imposition of provisional countervailing duties by Commerce in August 2015 and provisional antidumping duties in October 2015. CR/PR at I-1; PR/PR at Table IV-2. We also note that a ***. Petitioners' Prehearing Brief at 33-34. Given the effect of the pendency of the investigations on importers' behavior, we have reduced the weight that we accord to interim 2015 data in our analysis.

¹²³ CR/PR at Table IV-10. Nonsubject imports gained *** percentage points of market share from 2012 to 2014. The share of apparent U.S. consumption, by quantity, held by nonsubject imports was *** percent in 2012, *** percent in 2013, *** percent in 2014, *** percent in interim 2014, and *** percent in interim 2015. *Id.*

¹²⁴ The share of apparent U.S. consumption, by quantity, held by the domestic industry was *** percent in 2012, *** percent in 2013, *** percent in 2014, *** percent in interim 2014, and *** percent in interim 2015. CR/PR at Table IV-10.

(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.¹²⁵

As discussed above, the record in the final phase of these investigations indicates that the cumulated subject imports and the domestic like product are moderately to highly substitutable and that price is an important factor in purchasing decisions.

In the final phase of these investigations, the Commission collected pricing data for four PET resin products.¹²⁶ Three U.S. producers and 17 importers provided usable pricing data for sales of the requested products, although not all firms reported prices for all products for all quarters.¹²⁷ Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' shipments of PET resin, *** percent of U.S. shipments of subject imports from Canada, *** percent from China, *** percent from India, and *** percent from Oman during the POI.¹²⁸

The pricing data show that the prices of cumulated subject imports were below those for U.S.-produced product in 82 of 133 quarterly comparisons from 2012 to 2014.¹²⁹ The quantity of subject imports in underselling comparisons was *** pounds in 2012-2014, while the quantity that oversold the domestic product totaled *** pounds.¹³⁰ Margins of underselling reached up to 41.9 percent, and margins of overselling ranged from 0.1 to 18.3 percent.¹³¹ Given the predominant underselling and the fact that price is an important

¹²⁵ 19 U.S.C. § 1677(7)(C)(ii).

¹²⁶ The four pricing products are the following:

Product 1.— 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.

Product 2.— 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.

Product 3.— 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.

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.

CR at V-10 to V-11, PR at V-6.

¹²⁷ CR at V-11, PR at V-6.

¹²⁸ CR at V-11, PR at V-6.

¹²⁹ CR/PR at Table V-12 (excluding 2015 comparisons). We have focused our analysis on the full year data from 2012 to 2014, as explained in section V.C. above.

¹³⁰ CR/PR at Table V-12 (not including interim 2015 sales).

¹³¹ CR/PR at Table V-12 (not including interim 2015 sales).

consideration in purchasing decisions, we find the underselling by cumulated subject imports to be significant.^{132 133}

We have also considered whether the subject imports had significant price-depressing effects. Prices for the four domestically produced PET resin pricing products fell from 16 to 25 percent from 2012 to 2014.¹³⁴ During this period, however, domestic producers' PET resin sales contracts were indexed to publicly available raw material price data.¹³⁵ Consequently, because the raw material prices reflected in such indices fell during much of the POI, the domestic producers were forced to reduce prices. Although subject imports undersold the domestic like product, the record does not demonstrate that the lower-priced subject imports accounted for the significant price declines.¹³⁶ We therefore conclude that subject imports did not depress domestic prices to a significant degree.¹³⁷

¹³² Petitioners observe that the Commission also collected quarterly purchase price data for direct imports of the subject merchandise. Petitioners argue that this important portion of the U.S. market must be taken into account in analyzing competition and in comparing the prices of the domestic like product with subject imports, especially subject imports from India. See Petitioners' Prehearing Brief at 37-38.

¹³³ Commissioner Schmidtlein notes that direct import purchase costs were reported for subject product from India and Oman, primarily related to Product 1. Domestic purchasers who directly import reported that logistical or supply chain costs added about *** percent to the landed duty-paid cost of the subject imports. Prices for purchase costs were reported for *** percent added for logistical or supply chain costs, subject imports' costs were below domestic producers' prices in 9 out of 12 quarters; this is also true for the 6 quarters in which the Omani purchase costs were lower than the domestic producer prices. Further, for India, direct import purchases accounted for a substantially larger share of purchases compared to purchases for commercial sales, and for both India and Oman, accounted for an increasing volume of shipments (Table V-4 compared to Table V-3 for 2012 to 2014, showing that direct imports of Product 1 from India increased from *** pounds in 2012 to *** pounds in 2014, and direct imports for Product 1 from Oman increased from *** pounds in 2012 to *** in 2014). Commissioner Schmidtlein finds that these data provide further evidence that subject imports were significantly underselling the U.S.-produced PET resin.

¹³⁴ See CR/PR at Tables V-3, V-5, V-7, V-8 and V-11.

¹³⁵ See CR at V-7, PR at V-4. The record also indicates that some of the larger importers, ***, indexed their contracts to publicly available raw material price data, such as that provided by IHS and/or PCI. *Id.*

¹³⁶ CR at V-7, PR at V-4.

¹³⁷ Commissioners Williamson and Schmidtlein find significant price depression. Domestic producers lowered prices as increasing quantities of low-priced subject imports entered the market. The domestic industry lowered prices despite a *** percent increase in consumption from 2012 to 2014, and a *** percent increase in consumption from interim 2014 to interim 2015. Several significant purchasers confirmed that the domestic industry reduced prices in the face of subject import competition. CR at V-38-39, PR at V-11-12 and Table V-14.

Commissioners Williamson and Schmidtlein find that lower raw material costs do not fully explain the declining prices. The domestic industry's unit sales values fell by a larger margin than its unit raw material costs and its overall unit cost of goods sold from 2012 to 2014. See CR at Table VI-1. Moreover, the decline in PET resin prices exceeded the decline in raw material costs. Prices for the several domestic PET resin products fell by amounts ranging from ***. Petitioners' Posthearing Brief, (Continued...)

Price increases for PET resin would not have been likely given the domestic industry's steady or declining raw materials costs and unit COGS from 2012 to 2014.¹³⁸ This is particularly true given that the domestic industry used pricing mechanisms which reflected declines in publicly reported raw material prices, leading to a reduction in PET resin prices over the period. In light of this, we do not find that the subject imports prevented price increases, which otherwise would have occurred, to a significant degree.¹³⁹

Accordingly, based on the record in the final phase of these investigations, we find that there was significant underselling of the domestic like product by the subject imports. As a result of this underselling, the subject imports gained market share at the expense of the domestic industry, as described in section V.C. above. The low-priced cumulated subject imports consequently had significant effects on the domestic industry, which are described further below.

(...Continued)

Exh. 1 at 15; CR/PR at Tables V-3, V-5, V-7, V-8. With respect to costs, published indices show that raw material costs fell by *** per pound from Q1 2012 to Q4 2014; this *** decline could account for up to *** of the drop in PET resin prices, since raw material costs represented *** of the cost of making PET resin. Octal's Prehearing Brief at 24 (***); CR at V-7, VI-6, PR at V-4, VI-2.

¹³⁸ CR/PR at Fig. V-1 and Table VI-1. We observe that the raw material prices reflected in public indexes suggest that such prices fell in 2014 and to a lesser extent during 2013. CR/PR at Fig. V-1. Such a decline was not reflected in the industry's costs in 2013, however. CR at VI-2, PR at VI-1.

¹³⁹ In the responses to the Commission's lost sales/lost revenues survey, the majority of purchasers indicated that they did not switch from the domestic like product to the subject imports. CR at V-37 to V-38, PR at V-11. Nonetheless, the purchasers' responses indicate that the share of their purchases consisting of subject merchandise increased by *** percent, while the domestic industry's share of total purchases fell by *** percent. CR/PR at Table V-14.

E. Impact of the Subject Imports¹⁴⁰

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission “shall evaluate all relevant economic factors which have a bearing on the state of the industry.” 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.”¹⁴¹

The domestic industry’s performance indicators declined almost universally from 2012 to 2014.¹⁴² The industry’s production, U.S. shipments, and net sales all declined steadily

¹⁴⁰ The statute instructs the Commission to consider the “magnitude of the dumping margin” in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination with respect to subject imports from Canada, Commerce found an antidumping duty margin of 13.60 percent. *Certain Polyethylene Terephthalate Resin from Canada: Final Determination of Sales at Less Than Fair Value*, 81 Fed. Reg. 13319 (March 14, 2016). In its final determination with respect to subject imports from China, Commerce found antidumping duty margins ranging from 104.98 percent to 126.58 percent. *Certain Polyethylene Terephthalate Resin from the People’s Republic of China: Final Determination of Sales at Less Than Fair Value*, 81 Fed. Reg. 13331 (March 14, 2016). In its final determination with respect to subject imports from India, Commerce found antidumping duty margins ranging from 8.03 percent to 19.41 percent. *Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 Fed. Reg. 13327 (March 14, 2016). In its final determination with respect to subject imports from Oman, Commerce found an antidumping duty margin of 7.82 percent. *Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*, 81 Fed. Reg. 13336 (March 14, 2016).

Additionally, in its final countervailing duty determinations regarding subject imports from China and India, Commerce identified 17 countervailable subsidy programs in China and four countervailable subsidy programs in India. See *Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Certain PET Resin from the People’s Republic of China*, at 29-41 (March 14, 2016); *Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Certain PET Resin from India* at 14-20 (March 14, 2016). For subject producers from China, Commerce assigned net countervailable subsidy rates ranging from 6.83 percent to 47.56 percent. For subject producers from India, Commerce assigned net countervailable subsidy rates ranging from 5.12 percent to 153.80 percent. *Certain Polyethylene Terephthalate Resin from People’s Republic of China: Final Affirmative Countervailing Duty Determination*, 81 Fed. Reg. 133337 (March 14, 2016); *Certain Polyethylene Terephthalate Resin from India: Final Affirmative Countervailing Duty Determination and Final Affirmative Critical Circumstances Determination, in Part*, 81 Fed. Reg. 13334 (March 14, 2016).

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

¹⁴² See CR/PR at Table C-2. As we have explained above, we focus our analysis on the full-year data because we accord reduced weight to the interim 2015 data due to the effect of the pendency of the investigations on subject imports. The data discussed below indicate that when the subject import (Continued...)

between 2012 and 2014 despite increases in apparent U.S. consumption.¹⁴³ As subject imports captured more of the U.S. market, the domestic industry's shipments and market share declined steadily from 2012 to 2014.¹⁴⁴ The domestic industry's inventories increased from 2012 to 2014.¹⁴⁵

As discussed above, the domestic industry closed two facilities over the POI,¹⁴⁶ and it experienced declines in capacity and capacity utilization from 2012 to 2014.¹⁴⁷ Due mostly to the closures, the domestic industry's production-related workers, hours worked, and wages decreased over the POI.¹⁴⁸ The industry's productivity showed little change from 2012 to 2014.¹⁴⁹

(...Continued)

volume was lower in interim 2015, the domestic industry's market share, output, and financial performance improved.

¹⁴³ Production totaled 5.7 billion pounds in 2012, before falling to 5.6 billion pounds in 2013 and 5.4 billion pounds in 2014. Production was 4.1 billion pounds in interim 2014 and 4.3 billion pounds in interim 2015. CR/PR at Table III-4. The industry's U.S. shipments declined from 5.3 billion pounds in 2012 to 5.2 billion pounds in 2013 and 5.1 billion pounds in 2014. U.S. shipments were 4.0 billion pounds in interim 2014 and 4.1 billion pounds in interim 2015. CR/PR at Table III-6. Total net sales fell from *** pounds in 2012 to *** pounds in 2013 and *** pounds in 2014. They were *** pounds in interim 2014 and *** pounds in interim 2015. CR/PR at Table VI-1.

¹⁴⁴ As measured by quantity, the market share of the domestic industry declined from *** percent in 2012 to *** percent in 2013 and *** percent in 2014. The industry's market share was *** percent in interim 2014 and *** percent in interim 2015. CR/PR at Table IV-10.

We disagree with Reliance's contention that it is appropriate to include subject imports from Mexico in the domestic producers' market share. See Reliance's Prehearing Brief at 4. The statute expressly states that the analysis of impact – which includes, *inter alia*, evaluation of market share – shall be “only in the context of production operations within the United States.” 19 U.S.C. § 1677(7)(B)(i)(III); see 19 U.S.C. § 1677(7)(C)(iii)(I).

¹⁴⁵ U.S. producers' end-of-period inventories were *** pounds in 2012, *** pounds in 2013, and *** pounds in 2014; they were *** pounds in interim 2014 and *** pounds in interim 2015. CR/PR at Table III-8.

¹⁴⁶ See CR at III-6, PR at III-3; CR/PR at Table III-3. DAK laid off 340 employees and 264 contract workers when it closed its plant. See also Petitioners' Prehearing Brief at Exhibit 10 (July 2013 article in Manufacturing & Technology News indicating imports were responsible for closure of DAK's Cape Fear plant).

¹⁴⁷ U.S. producers' capacity was 6.9 billion pounds in 2012, 6.7 billion pounds in 2013, and 6.6 billion pounds in 2014. CR/PR at Table III-4. It was 5.0 billion pounds in interim 2014 and in interim 2015. *Id.* U.S. producers' capacity utilization increased from 83.2 percent in 2012 to 83.4 percent in 2013, before declining to 81.1 percent in 2014. *Id.* It was 82.6 percent in interim 2014 and 87.5 percent in interim 2015. *Id.*

¹⁴⁸ The industry's number of production-related workers declined from 1,060 in 2012 to 1,057 in 2013 and 989 in 2014. CR/PR at Table III-10. There were 989 workers in interim 2014 and 982 in interim 2015. *Id.* *** were responsible for the majority of the decline in workers from 2012 to 2014. CR at III-16, PR at III-9. Hours worked were 1.7 million in 2012-13 and 1.6 million in 2014. *Id.* They were 1.2 million in interim 2014 and interim 2015. *Id.* The wages the industry paid to its workers increased from (Continued...)

The domestic industry also experienced declining financial performance from 2012 to 2014. Sales revenues decreased both due to lower sales quantities in 2013 and 2014 and lower average unit sales values in 2014.¹⁵⁰ The ratio of COGS to net sales was at high levels and increased.¹⁵¹ Gross profit declined.¹⁵²

Operating income declined from \$*** in 2012 to \$*** in 2013 and a *** in 2014.¹⁵³ The domestic industry's operating income margin declined from *** percent in 2012 to *** percent in 2013 and *** percent in 2014, which was *** percentage points lower than in 2012.¹⁵⁴ Net income declined from \$*** in 2012 to *** in 2013 and \$*** in 2014.¹⁵⁵

(...Continued)

\$41.0 million in 2012 to \$41.1 million in 2013, and then fell to \$40.7 million in 2014. *Id.* Wages paid were \$33.4 million in interim 2014 and \$33.0 million in interim 2015. *Id.*

¹⁴⁹ The industry's productivity measured in pounds per 1,000 hours declined from 3,390.4 in 2012 to 3,347.5 in 2013, and then increased to 3,388.9 in 2014. CR/PR at Table III-10. It was 3,311.2 in interim 2014 and 3,556.4 in interim 2015. *Id.*

¹⁵⁰ The domestic industry's sales revenues fell from \$*** in 2012 to \$*** in 2013 and \$*** in 2014. CR/PR at Table VI-1. They were \$*** in interim 2014 and \$*** in interim 2015. *Id.*

¹⁵¹ The domestic industry's COGS as a ratio to net sales increased from *** percent in 2012 to *** percent in 2013 and *** percent in 2014. It was *** percent in interim 2014 and *** percent in interim 2015. CR/PR at Table VI-1.

¹⁵² The domestic industry's gross profits declined from \$*** in 2012 to \$*** in 2013 and \$*** in 2014. CR/PR at Table VI-1. Gross profits were \$*** in interim 2014 and \$*** in interim 2015. *Id.*

Respondents suggest that the Commission should rely upon alternative cost data provided by domestic producers that exclude the profit component for raw materials purchased from related sources. Reliance's Prehearing Brief at 26; Octal's Posthearing Brief at 10. See CR at VI-6, PR at VI-2 & Appendix G. We disagree that the alternative cost data are a more appropriate method than the actual cost data reported by the three domestic producers reporting transfer prices pursuant to the questionnaire instructions. We have adopted a practice of using actual cost information on the basis that it is "more useful for purposes of our analysis because it more closely reflects the actual cost of goods sold which directly impacted the U.S. producer's decisions related to revenue, *i.e.* pricing." *1-1-1-2 Tetrafluoroethane from China*, Inv. Nos. 701-TA-509 and 731-TA-1244 (Final), USITC Pub. 4503 at 23 n. 147 (Dec. 2014). We also note that the *** financial information was verified by the Commission's auditor and that the producer not reporting transfer prices, ***. See CR/PR at Table VI-2.

In any event, the industry's financial performance based on the alternative cost data show similar downward trends compared to its performance based on actual costs. Thus, the alternative cost data on which respondents rely corroborate our conclusion that the domestic industry's financial performance trends deteriorated from 2012 to 2014. The fact that the appendix G data show positive net and operating income margins is not controlling in light of the statutory instruction that "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." Pub. L. 114-27, § 503(a) (adding new provision codified at 19 U.S.C. § 1677(7)(J)).

¹⁵³ CR/PR at Table VI-1. Operating income was \$*** in interim 2014 and \$*** in interim 2015.

¹⁵⁴ CR/PR at Table VI-1. The domestic industry's operating income ratio was *** percent in interim 2014 and *** in interim 2015. *Id.* The industry's return on investment expressed as operating (Continued...)

Through pervasive underselling, subject import volume increased significantly in absolute terms from 2012 to 2014. Subject import market share also increased at the expense of the domestic industry. The reduced domestic industry market share in turn caused lower production, shipments, and sales despite moderate growth in apparent U.S. consumption.¹⁵⁶

Because the domestic industry, despite having the ability to increase its production and shipments,¹⁵⁷ was unable to increase its shipments commensurately with growing demand, it lost revenues that it otherwise would have obtained. These lost revenues were reflected in its poor and declining financial performance. We accordingly find that the significant volume of cumulated subject imports, which gained market share at the expense of the domestic industry through significant underselling, had a significant impact on the domestic industry.¹⁵⁸

We have considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject imports. As discussed above, apparent U.S. consumption increased during the POI.¹⁵⁹ While nonsubject imports had an appreciable presence in the U.S. market, their market share, unlike that of the subject imports, showed little change between 2012 and 2014.¹⁶⁰ Moreover, imports of PET resin from Mexico, by far the largest source of nonsubject

(...Continued)

income (loss) to assets declined from *** percent in 2012 to *** percent in 2013 and *** percent in 2014. CR/PR at Table VI-4.

¹⁵⁵ CR/PR at Table VI-1. The industry reported a *** in interim 2014 and net income of \$*** in interim 2015. *Id.* The industry's capital expenditures were \$*** in 2012, \$*** in 2013, and \$*** in 2014; they were \$*** in interim 2014 and \$*** in interim 2015. CR/PR at Table VI-4. Its research and development expenses increased from \$*** in 2012 to \$*** in 2013 and then fell to \$*** in 2014; they were \$*** in interim 2014 and \$*** in interim 2015. *Id.*

¹⁵⁶ We disagree with Reliance's contention that M&G's investment in a new PTA and PET resin plant in Corpus Christi, Texas indicates that the domestic industry is not suffering material injury. See Reliance's Prehearing Brief at 29. The investment was planned in 2011, before the POI. See Tr. at 62 (Adlam); Petitioners' Posthearing Brief, Exhibit 4. Further, the facility will produce products other than PET resin. CR at III-5, PR at III-2 to III-3.

¹⁵⁷ The industry operated at modest capacity utilization rates during 2012-14, indicating it had the ability to increase production, and its capacity utilization declined overall during 2012-14. See CR/PR at Table III-4.

¹⁵⁸ Commissioners Williamson and Schmidlein find that price depression caused by subject imports also contributed to the industry's declining financial performance. See CR/PR at Table VI-3 (variance analysis).

¹⁵⁹ Apparent U.S. consumption of PET resin increased overall during the POI, from *** pounds in 2012 to *** pounds in 2013 and *** pounds in 2014. CR/PR at Table IV-9. The industry experienced its largest annual decline in operating income in 2014, despite higher apparent U.S. consumption that year. See CR/PR at Table VI-1.

¹⁶⁰ As measured by quantity, nonsubject import market share was *** percent in 2012, *** percent in 2013, and *** percent in 2014. CR/PR at Table IV-10.

imports, were frequently priced higher than the subject imports and generally higher than domestically produced PET resin during the POI.^{161 162}

Thus, other factors cannot explain the loss in market share, output, and revenues that we have attributed to the cumulated subject imports. We therefore conclude that the subject imports had a significant impact on the domestic PET resin industry.

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of certain PET resin from Canada, China, India, and Oman that are sold in the United States at less than fair value and that are subsidized by the governments of China and India.

VI. Critical Circumstances

A. Legal Standards

In its final antidumping and countervailing duty determinations concerning subject imports from India, Commerce made affirmative critical circumstances determinations with respect to certain exporters.¹⁶³ Because we have determined that the domestic industry is materially injured by reason of cumulated subject imports, we must further determine “whether the imports subject to the affirmative {Commerce critical circumstances} determination . . . are likely to undermine seriously the remedial effect of the antidumping {and/or countervailing duty} order{s} to be issued.”¹⁶⁴ The SAA indicates that the Commission is to determine “whether, by massively increasing imports prior to the effective date of relief, the importers have seriously undermined the remedial effect of the order” and specifically “whether the surge in imports prior to the suspension of liquidation, rather than the failure to provide retroactive relief, is likely to seriously undermine the remedial effect of the order.”¹⁶⁵ The legislative history for the critical circumstances provision indicates that the provision was designed “to deter exporters whose merchandise is subject to an investigation from circumventing the intent of the law by increasing their exports to the United States during the period between initiation of an investigation and a preliminary determination by

¹⁶¹ CR/PR at Table E-8. Prices for product imported from Korea, Mexico, and Taiwan were higher than prices for U.S.-produced product in 60 of 76 quarterly comparisons, and were higher than prices for the subject imports in 237 of 313 comparisons. CR at E-3. While we view AUV data with caution because differences in AUVs may reflect differences in product mix, we note that the AUVs of nonsubject imports were consistently higher than those of subject imports during the POI. CR/PR at Table C-1.

¹⁶² We also recognize that some of the industry’s decline in total shipments of PET resin over the POI was due to falling quantities of export shipments. Nevertheless, U.S. producer shipments destined for the U.S. market declined as well, as subject imports increased in volume and market share. CR/PR at Table III-6.

¹⁶³ 80 Fed. Reg. 34893 (June 18, 2015); 80 Fed. Reg. 34888 (June 18, 2015).

¹⁶⁴ 19 U.S.C. §§ 1671d(b)(4)(A)(i), 1673d(b)(4)(A)(i).

¹⁶⁵ SAA at 877.

{Commerce}.¹⁶⁶ An affirmative critical circumstances determination by the Commission, in conjunction with an affirmative determination of material injury by reason of subject imports, would normally result in the retroactive imposition of duties for those imports subject to Commerce's affirmative critical circumstances determination for a period 90 days prior to the suspension of liquidation.¹⁶⁷

The statute provides that, in making this determination, the Commission shall consider, among other factors it considers relevant, –

- (I) the timing and the volume of the imports,
- (II) a rapid increase in inventories of the imports, and
- (III) any other circumstances indicating that the remedial effect of the {order} will be seriously undermined.¹⁶⁸

In considering the timing and volume of subject imports, the Commission's practice is to consider import quantities prior to the filing of the petition with those subsequent to the filing of the petition using monthly statistics on the record regarding those firms for which Commerce has made an affirmative critical circumstance determination.¹⁶⁹

B. Parties' Arguments

Petitioners urge the Commission to make affirmative critical circumstances determinations based upon a five-month period for assessment of the level of subject imports from India. Because Commerce issued its preliminary determination in the countervailing duty investigation in August 2015, petitioners contend that the five-month period accords with the purpose of the statute, which is designed to deter exporters from increasing exports prior to Commerce's preliminary determination.¹⁷⁰

Reliance argues that the Commission should not make affirmative critical circumstances findings. It argues that with a six-month comparison period, there is a relatively small increase in subject imports from India. It further maintains that inventories are relatively modest.¹⁷¹ Premium Waters also argues against a finding of critical circumstances, maintaining that March

¹⁶⁶ *ICC Industries, Inc. v. United States*, 812 F.2d 694, 700 (Fed. Cir. 1987), quoting H.R. Rep. No. 317, 96th Cong., 1st Sess. 63 (1979), *aff'd* 632 F. Supp. 36 (Ct. Int'l Trade 1986).

¹⁶⁷ See 19 U.S.C. §§ 1671b(e)(2), 1673b(e)(2).

¹⁶⁸ 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii).

¹⁶⁹ See *Lined Paper School Supplies from China, India, and Indonesia*, Inv. Nos. 701-TA-442 to 443, 731-TA-1095 to 1097 (Final), USITC Pub. 3884 at 46-48 (Sept. 2006); *Carbazole Violet Pigment from China and India*, Inv. Nos. 701-TA-437 & 731-TA-1060 to 1061 (Final), USITC Pub. 3744 at 26 (Dec. 2004); *Certain Frozen Fish Fillets from Vietnam*, Inv. No. 731-TA-1012 (Final), USITC Pub. 3617 at 20-22 (Aug. 2003).

¹⁷⁰ Petitioners' Prehearing Brief at 74-75.

¹⁷¹ Reliance's Posthearing Brief at 14-15.

2015 should be included in the pre-petition period because importers could not have imported PET resin during March 2015 in response to the filing of the petition.¹⁷²

C. Analysis

On March 14, 2016, Commerce made affirmative critical circumstances determinations with respect to imports of PET resin from India in both its final antidumping and its final countervailing duty determinations.¹⁷³ In its affirmative determination in the countervailing duty investigation, Commerce excluded subject imports from one Indian producer/exporter of PET resin, Dhunseri Petrochem Ltd. The determination with respect to subject imports from India in the antidumping duty investigation applies to all subject imports from India.¹⁷⁴

We first consider the appropriate period for comparison of pre-petition and post-petition levels of subject imports from India. In previous investigations, the Commission has relied on a shorter comparison period when Commerce's preliminary determination applicable to the country at issue fell within the six-month post-petition period the Commission typically considers.¹⁷⁵ That situation arises here, and we thus have determined to compare the volume of subject imports from India five months prior to the filing of the petition with the volume of subject imports from India five months after the filing of the petition.¹⁷⁶

Commerce's affirmative critical circumstances determination in the antidumping investigation includes all Indian exporters of PET resin, so we first consider critical circumstances in that investigation. Based on a comparison of subject imports over the five-month periods before and after the March 10, 2015 filing of the petitions, we do not find a massive increase in subject imports warranting an affirmative critical circumstances determination.

Imports of PET resin subject to affirmative critical circumstances findings in Commerce's antidumping duty investigation increased from 19.9 million pounds during October 2014-

¹⁷² Premium Waters' Posthearing Brief at 3-5.

¹⁷³ *Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 Fed. Reg. 13327 (Mar. 14, 2016); *Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India: Final Affirmative Determination and Final Affirmative Critical Circumstances Determination, in Part*, 81 Fed. Reg. 13334 (Mar. 14, 2016).

¹⁷⁴ *Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 Fed. Reg. 13327 (Mar. 14, 2016).

¹⁷⁵ *Carbon and Certain Steel Wire Rod from China*, Inv. Nos. 701-TA-512, 731-TA-1248 (Final), USITC Pub. 4509 at 25-26 (Jan. 2015) (using five-month periods because preliminary Commerce countervailing duty determination was during the sixth month after the petition).

¹⁷⁶ We also find it appropriate to include March 2015, the month of the filing of the petition, in the post-petition period because the petition was filed relatively early in the month (March 10th). See *Certain Lined School Paper Supplies from China, India, and Indonesia*, Inv. Nos. 701-TA-442-443 & 731-TA-1095-1097 (Final), USITC Pub. 3884 at 47 (Sept. 2006) (including month petition was filed in post-petition period when it was filed on ninth day of month).

February 2015 to 33.4 million pounds during March 2015-July 2015.¹⁷⁷ Although the percentage increase in subject imports from India between the pre- and post-petition periods was substantial, the actual volume involved, and its share compared to apparent U.S. consumption, was less so. The 33.4 million pounds of post-petition imports from India was equivalent to less than *** percent of apparent U.S. consumption in interim 2015; the 13.5 million pound increase between the five-month periods represented an even smaller share.¹⁷⁸ We find that the volume of subject imports from India in the post-petition period is too small to have a significant effect on the domestic industry and undermine seriously the effectiveness of the order.¹⁷⁹ We also note that U.S. importers' end-of-period inventories of subject merchandise from India in September 2015 (*** pounds) were substantially lower than in December 2014 (*** pounds) or in September 2014 (*** pounds).¹⁸⁰

Having also considered the domestic industry's condition, the pricing of subject imports during the POI, and the moderate to high degree of substitutability between subject imports from India and the domestic like product, we do not find evidence of a massive increase in subject imports from India that would warrant retroactive application of suspension of liquidation – and imposition of duties – for a 90-day period. We do not find that the subject imports that entered the U.S. market after the filing of the petition would seriously undermine the remedial effect of the antidumping duty order that Commerce would issue. Consequently, we determine that critical circumstances do not exist with respect to those imports from India of PET resin that are subject to affirmative critical circumstances determinations in Commerce's final antidumping duty determination.

As noted above, we consider separately Commerce's affirmative critical circumstances determinations in the countervailing duty investigation of PET resin from India. Commerce excluded producer Dhunseri Petrochem Ltd. from its determinations, and the volume of subject imports from India is far less with that exporter excluded.¹⁸¹ Given our finding that the quantity of post-petition imports in the antidumping investigation with Dhunseri Petrochem Ltd. included was too small to undermine seriously the effectiveness of the order, we also determine that critical circumstances do not exist with respect to those imports from India of PET resin that are subject to affirmative critical circumstances determinations in Commerce's final countervailing duty determination.¹⁸²

VII. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of certain PET resin from Canada, China, India,

¹⁷⁷ CR/PR at Table IV-4.

¹⁷⁸ CR/PR at Table IV-9.

¹⁷⁹ See *Folding Metal Tables and Chairs from China*, 731-TA-932 (Final), USITC Pub 3515 (June 2002) at 25.

¹⁸⁰ CR/PR at Table VII-22.

¹⁸¹ See CR/PR at Table IV-4.

¹⁸² We note that the outcome would be no different if we used 6-month periods.

and Oman that are sold in the United States at less than fair value and that are subsidized by the governments of China and India. We also determine that critical circumstances do not exist with respect to those imports of PET resin from India that are subject to affirmative critical circumstances determinations in Commerce's final antidumping duty and countervailing duty determinations.

Separate Views of Commissioner F. Scott Kieff on Cross-Cumulation

Commerce made affirmative dumping findings with respect to imports from all four subject countries, but made affirmative subsidy findings only with respect to subject imports from China and India.¹ Reliance and Octal argue that the Commission should not cross-cumulate the subsidized and dumped imports from China and India with the dumped imports from Oman and Canada, relying on the WTO Appellate Body's report in *United States – Countervailing Measures on Certain Hot-Rolled Steel Products from India*, WT/DS436/AB/R (adopted Dec. 19, 2014).² In that report, the Appellate Body found that the Commission acted inconsistently with the WTO Agreement on Subsidies and Countervailing Measures when it cumulated subsidized imports of hot-rolled steel from India with dumped imports of hot-rolled steel from other subject countries that were simultaneously subject to investigation but not subject to subsidy findings.³

Given these arguments, the Commission has considered whether we should cross-cumulate subsidized imports from China and India with dumped imports from Canada and Oman. In so doing, we have noted that the Commission has cross-cumulated dumped and subsidized subject imports since the Federal Circuit's 1987 *Bingham & Taylor* decision.⁴ The

¹ The petition did not make countervailing duty allegations with respect to subject imports from Canada, and Commerce found *de minimis* countervailing duties on subject imports from Oman. 81 Fed. Reg. 13321 (Mar. 14, 2016).

² Reliance Prehearing Brief at 37-38; Octal Posthearing Brief at 6. In several investigations since the issuance of the DSB report, including the preliminary determinations here, the Commission stated that it would not be appropriate to change its longstanding practice while a proceeding was pending under section 129 of the URAA, 19 U.S.C. § 3538(a)(4), to render the countervailing duty determination on hot-rolled steel from India not inconsistent with the DSB report. See *Certain New Pneumatic Off-the-Road Tires from China, India, and Sri Lanka*, Inv. Nos. 701-TA-551-553 and 731-TA-1307-1308 (Preliminary), USITC Pub. 4594 at 25 n. 98 (Mar. 2016); *Certain Cold-Rolled Steel Flat Products from Australia, Brazil, Japan, Korea, the Netherlands, Turkey and the United Kingdom*, Inv. Nos. 701-TA-545-547 and 731-TA-1291-1297 (Preliminary), USITC Pub. 4570 at 15 n. 73 (Oct. 2015); *Preliminary Determination*, USITC Pub. 4531 at 10 n.47; *Certain Crystalline Silicon Photovoltaic Products from China and Taiwan*, Inv. Nos. 701-TA-511 and 731-TA-1246-1247 (Final), USITC Pub. 4519 at 24 n.124 (Feb. 2015). See also *Certain Steel Nails from Korea, Malaysia, Oman, Taiwan and Vietnam*, Inv. Nos. 701-TA-521 and 731-TA-1252-1255 and 1257 (Final), USITC Pub. 4541 at 13 n. 65 (July 2015).

The Commission issued its section 129 determination in *Hot-Rolled Steel from India* on March 7, 2016. In that determination, the Commission found that an industry in the United States was materially injured by reason of subsidized imports of hot-rolled steel from India. In reaching this conclusion in the consistency determination, the Commission cumulated the subsidized subject imports from India only with other simultaneously investigated subject imports subject to Commerce subsidy findings. The Commission stated that its analysis in the section 129 proceeding was "limited to issuing a determination in connection with the particular matter at issue." *Hot-Rolled Steel from India*, Inv. No. 701-TA-405 (Final) (Section 129 Consistency Determination), USITC Pub. 4599 at 5 (Mar. 2016).

³ *United States – Countervailing Measures on Certain Hot-Rolled Steel Products from India*, WT/DS436/AB/R (adopted Dec. 19, 2014).

⁴ *Bingham & Taylor v. United States*, 815 F.2d 1482 (Fed. Cir. 1987). Starting in 1987 through its recent determinations, the Commission has cross-cumulated based on the holding in *Bingham & Taylor*.

Commission has determined to cross-cumulate. I join my fellow Commissioners in this regard, and I do not adopt the argument that was presented in the present investigations by respondents, which appears to have been based primarily on the international law that includes the recent WTO decision.

Recognizing that the Commission, as an agency of the U.S. government, is bound to follow domestic U.S. law, I write separately to ask future parties to provide arguments grounded in U.S. law that might help guide any deliberations over any change in the practice of cross-cumulation. I do so precisely because I think that the Commission is at its best when we are squarely presented with arguments on both sides of ultimate issues on important matters like our practice of cross-cumulating, including on both sides of the more intricate subordinate issues one might consider in route to reaching a decision on the ultimate issue. In so doing, I hope to help fairly, efficiently, and effectively enable the parties in an appropriate future matter to present their best views on both sides of these subordinate questions as well as on the ultimate question of cross-cumulation.

While deviation from practice should not be done lightly, the continuation of practice is itself something to occasionally question as well. And although it is of course not for the WTO to interpret U.S. law, I have only encountered these questions recently, through the arguments raised in the present investigation, which themselves purport to be stimulated by the fact of the recent WTO action. Yet, having now encountered these questions, I hope that raising them at this time can help provide a full and fair opportunity for parties considering arguments on all sides of future matters likely to come before the Commission soon, which, in turn helps ensure any decision by the Commission to continue past practice remains fully in line with our Congressionally enacted statute moving forward.

The Federal Circuit in *Bingham & Taylor* described the Commission's early practice of cumulation as inconsistent; while some Commissioners cross-cumulated dumped and subsidized imports, the Commission as an entity had no consistent policy regarding cumulation.⁵ In 1984, the statute was amended to provide further guidance on cumulation. That revision directed that the Commission "shall cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if those products competed with each other and with the like products of the domestic industry in the United States."⁶ In the wake of that amendment, the Commission did not institute a practice of cross-cumulating imports subject to countervailing duty investigations with those subject to antidumping duty investigations.⁷ This lack of a practice of cross-cumulating was placed before the Federal Circuit in *Bingham & Taylor*.

See, e.g., Industrial Phosphoric Acid from Belgium and Israel, Inv. Nos. 701-TA-286 and 731-TA-365 and 366 (Final), USITC Pub. 2000 at 17 n.69 (Aug. 1987); *Certain New Pneumatic Off-the-Road Tires from China, India, and Sri Lanka*, Inv. Nos. 701-TA-551-553 and 731-TA-1307-1308 (Preliminary), USITC Pub. 4594 at 25 n. 98 (Mar. 2016).

⁵ 815 F.2d at 1485.

⁶ Old Section 771(7)(C)(iv), cited at 815 F.2d at 1484; Trade and Tariff Act of 1984, Pub. L. 98-573 (1984), Section 612.

⁷ *See, e.g., Certain Carbon Steel Products from Austria, Czechoslovakia, East Germany, Hungary, Norway, Poland, Romania, Sweden, and Venezuela*, Inv. Nos. 701-TA-224-234 (Preliminary) and 731-TA-213-217, 219, 221-226, and 228-235 (Preliminary), USITC Pub. 1642 (February 1985); *Iron Construction*

In *Bingham & Taylor*, the Federal Circuit found the statutory language of the 1984 amendment “unclear on its face.”⁸ Despite that finding, the Court did not engage in a *Chevron* analysis⁹ to determine whether the Commission’s interpretation—that the 1984 revision did not require cross-cumulation—was reasonable. This lack of focus on *Chevron* and other doctrines of administrative law was consistent with Federal Circuit practice at the time.¹⁰ Recognizing that court decisions can be perfectly valid without explicitly discussing all arguments that may have been presented to the court, one question that might be appropriate for parties to address at some point in the future, perhaps only if before the Federal Circuit or the Supreme Court, is whether the Federal Circuit’s *Bingham & Taylor* decision is consistent with the requirements of U.S. administrative law as promulgated by Congress, signed by the President, and interpreted by the courts.

The Federal Circuit in *Bingham & Taylor* relied heavily on the legislative history about cumulation, which the Court labeled as “scant.”¹¹ The Court ultimately focused on a House Ways and Means Committee report, noting the need to adequately address “*simultaneous imports unfair imports from different countries*” and the belief that cumulation was based on the “*sound principle of preventing material injury which comes about by virtue of several unfair acts or practices*.”¹² The Court also noted that testimony before the House Ways and Means Subcommittee on Trade citing cross-cumulation indicated that the matter was “squarely presented to Congress.”¹³ And the Court further noted that the provision on cumulation was placed in a section of the statute applicable to both types of investigations, while other amendments facilitated the holding of simultaneous antidumping and countervailing duty investigations.¹⁴ Based on this review of the legal history, the Federal Circuit found it “improper” to “engraft...a prohibition against cross-cumulation.”¹⁵ But its endorsement of cross-cumulation was not unlimited. In an accompanying footnote to this part of its opinion, the Court left open the question of cross-cumulation “where such a practice would clearly lead to a violation of this country’s international obligations.”¹⁶ One question that might be appropriate for parties to address at some point in the future is what this footnote from *Bingham & Taylor* says, if anything, about the state of U.S. law on cross-cumulation at that time.

After *Bingham & Taylor*, the Commission treated that decision as conclusive on questions of cross-cumulation. As a result, the Commission thereafter consistently followed a

Castings from Brazil, Canada, India, and the People’s Republic of China, Inv. Nos. 701-TA-249 (Preliminary) and 731-TA-262-265 (Preliminary), USITC Pub. 1720 (June 1985).

⁸ 815 F.2d at 1485.

⁹ *Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984) (courts will accept an agency’s reasonable interpretation of the ambiguous terms of a statute that the agency administers).

¹⁰ See, e.g., *Dickinson v. Zurko*, 527 U.S. 150 (1999).

¹¹ 815 F.2d at 1485.

¹² 815 F.2d at 1485, citing H.R. Rep. No. 725, 98th Cong., 2d Sess. at 37 (emphasis added by the Court).

¹³ 815 F.2d at 1486.

¹⁴ 815 F.2d at 1486.

¹⁵ 815 F.2d at 1487.

¹⁶ 815 F.2d at 1487 n.12.

practice of cross-cumulating imports subject to both antidumping and countervailing duty investigations.

In 1994, in the process of adapting U.S. law for accession to the WTO, Congress passed the Uruguay Round Agreements Act (URAA).¹⁷ Accompanying this statute was a Statement of Administrative Authority (SAA).¹⁸ The URAA explicitly provided that no provision in it that is “inconsistent with any law of the United States” was to have any effect,¹⁹ and the SAA stated that reports issued by the WTO were to have “no binding effect under the law of the United States and do not represent an expression of U.S. foreign or trade policy.”²⁰ The SAA further stated that “certain modifications” were necessary to the statute’s provisions “to ensure complete consistency,” but “existing law and practice” were found to be “largely consistent” with the new WTO agreements.²¹ Neither the URAA nor the SAA seem to expressly mention *Bingham & Taylor* or cross-cumulation.²² One question that might be appropriate for parties to address at some point in the future is what impact, if any, the URAA had on *Bingham & Taylor*, including its footnote regarding cross-cumulation and international obligations, and on the practice of cross-cumulation itself. A related question is what was the Congressionally enacted policy of the U.S. on cross-cumulation before, or after, the URAA.

After the passage of the URAA, the Commission continued to follow a practice of cross-cumulating, and in so doing regularly cited to *Bingham & Taylor*. In *Certain Steel Wire Rod from Canada, Germany, Trinidad & Tobago, and Venezuela*, the Commission explicitly rejected arguments that the URAA had overruled *Bingham & Taylor*.²³ One question that might be appropriate for parties to address at some point in the future is what, exactly, the *Certain Steel Wire Rod* opinion did decide about cross-cumulation, including the URAA’s impact, if any, on prior requirements under U.S. law with respect to cross-cumulation, including prior statutory frameworks or case-law such as *Bingham & Taylor*, and whether and how any such prior Commission decisions should impact future Commission decisions regarding cross-cumulation.

¹⁷ Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809.

¹⁸ H.R. Rep. No. 103-316, Vol. 1 (1994).

¹⁹ 19 U.S.C. § 3512(a)(1).

²⁰ SAA at 1032.

²¹ SAA at 847.

²² The URAA revisions left the statutory provisions dealing with cumulation in a section dealing with both types of investigations, such as the definitions for material injury. Even here, however, there is potentially an unexplored ambiguity in the use of the conjunction “or.” The statute provides that the Commission “shall cumulatively assess” subject merchandise from all countries with respect to which “petitions were filed under section 1671a(b) or 1673a(b).” 19 U.S.C. 1677(7)(G)(i) (emphasis added). One question that might be appropriate for parties to address at some point in the future is whether this use of the conjunction “or” contemplates that the clause preceding the word “or” is linked to only one of the two clauses following it, but not both of them. Put differently, does this statutory phrase containing the word “or” followed by two options imply a logic that is triggered when only one of those options is triggered but not both of them, or does it imply a meaning that is akin to the colloquial phrase “and/or”, which would trigger the logic when either one of the two options is triggered and when both are triggered?

²³ Inv. Nos. 701-TA-368-371 (Final), USITC Pub. 3075 (November 1997) at 21.

Recognizing that, for the reasons mentioned earlier, the recent WTO decision might be characterized as an event worth triggering a careful deliberation about whether to continue our existing practice of cross-cumulation, given the statutory direction to follow only U.S. law, such deliberation would itself be most appropriately grounded in U.S. law. That is, a preliminary question that would have to be answered before it would be fairly worth imposing on opposing parties and the Commission as a custodian of public funds the costs of briefing and deliberation regarding the several above-mentioned questions, is whether the recent WTO decision, or any other recent event, is an appropriate basis for reexamining our cross-cumulation practice. And if so, what new insight or information should be considered in a reexamination of cross-cumulation under U.S. statute and case law as they existed around the time of *Bingham & Taylor*, the URAA, or now.

In the final analysis, it might ultimately be appropriate for parties to address at some point in the future the basic question of what, exactly, is required under U.S. law on the matter of cross-cumulation. In so doing, it might help to recognize that at least three candidate responses might be considered. These include: cross-cumulation is required; cross-cumulation is prohibited; or some middle-ground option like cross-cumulation is within the sound judgment of the Commission, so long as reasonably supported by logical explanation grounded in the factual record of the given investigations, perhaps in some analogous fashion to the Commission's long-standing practice of addressing the related question of cumulation (as distinct from *cross-cumulation*).²⁴ Other options might be more appropriate.

To be sure, as noted above, I believe we have properly continued to cross-cumulate in cases such as the present investigation. I further believe that at an appropriate time in the future the parties might raise appropriate arguments under U.S. law that might appropriately address questions such as some or all of those sketched above, to determine whether and under what circumstances imports subject to one sort of investigation should be cross-cumulated with those subject to the other sort. And, raising these questions does not suggest how they should or would be answered. I will continue to follow U.S. law and policy as they are set by Congress, the President, and the courts, including the obligation to not decide issues until they are necessary to the resolution of the disputes put before me as well the obligation to show the public and the parties who come before the Commission what analytical frameworks arise during the decision-making process.

²⁴ The statute directs the Commission to cumulate when, *inter alia*, "subject imports compete with each other and with domestic like products in the United States market." 19 U.S.C. § 1677(G)(i) and (H). The Commission has developed a test to determine whether subject imports compete with each other and with the domestic like product, and this test is longstanding, approved by the courts, and specifically cited favorably by the SAA. *Fundicao Tupy, S.A. v. United States*, 678 F.Supp. 898, 902 (Ct. Int'l Trade 1988), *aff'd* 859 F.2d 915 (Fed. Cir. 1988). The Commission adapted its cumulation practice to the new five-year reviews. *Nucor Corp. v. United States*, 594 F.Supp.2d 1320 (Ct. Int'l Trade 2008), *aff'd* 601 F.3d 1291 (2010) (Commission could reasonably consider different volume and price trends in cumulation analysis); *Neenah Foundry Co. v. United States*, 155 F.Supp. 2d 766 (Ct. Int'l Trade 2001) (considering trends and specific conditions of competition).

PART I: INTRODUCTION

BACKGROUND

These investigations result from a petition filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by DAK Americas, LLC (“DAK”), Charlotte, NC; M&G Chemicals (“M&G”), Houston, TX; and Nan Ya Plastics Corporation, America (“Nan Ya”), Lake City, SC, on March 10, 2015, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized imports of certain polyethylene terephthalate resin (“PET resin”)¹ from China, India, and Oman and less-than-fair value (“LTFV”) imports of PET resin from Canada, China, India, and Oman. The following tabulation provides information relating to the background of these investigations.^{2 3}

Effective date	Action
March 10, 2015	Petition filed with Commerce and the Commission; institution of the Commission's investigations.
April 6, 2015	Commerce's notice of initiation (80 FR 18369 (CVD) and 80 FR 18376 (AD))
April 24, 2015	Commission's preliminary determinations
August 14, 2015	Commerce's CVD preliminary determinations on China (80 FR 48810); India (80 FR 48819); and Oman (80 FR 48808).
October 15, 2015	Commerce's AD preliminary determination on Canada (80 FR 62019); China (corrected) (80 FR 69643, November 10, 2015); India (80 FR 62029); and Oman (80 FR 62021).
November 5, 2015	Scheduling of final phase of the Commission's investigations (80 FR 68563)
March 1, 2016	Commission's hearing
March 14, 2016	Commerce's AD final determinations on Canada (81 FR 13319); China (81 FR 13331); India (81 FR 13327); and Oman (81 FR 13336). Commerce's CVD final determinations on China (81 FR 13337); India (80 FR 13334); and Oman (81 FR 13321).
March 31, 2016	Commission's votes
April 28, 2016	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 to these investigations.

² Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission's website (www.usitc.gov).

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

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 effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more

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

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

MARKET SUMMARY

PET resin is used to make beverage bottles, food containers, containers for household chemical products, and packaging for cosmetic, automotive, and pharmaceutical products. It can also be used to produce high-strength strapping for industrial uses and is used in the production of carpet fibers. There are four U.S. producers of PET resin: DAK, Indorama Ventures Holdings LP ("Indorama), M&G, and Nan Ya.

The only PET resin producer in Canada is Selenis Canada, Inc. ("Selenis")⁶ and the only PET resin producer in Oman is Octal Petrochemical LLC FZC ("Octal"). In India, the leading producers of PET resin are *** and ***. No producer or exporter of PET resin in China responded to requests for questionnaires in these final phase investigations.⁷ The leading U.S. importers of PET resin are *** from Canada, *** from China, *** from India, and *** from Oman. Leading importers of PET resin from nonsubject countries include *** from Mexico and *** from Indonesia.

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

⁶ Selenis has not submitted a foreign producer questionnaire in these final phase investigations, but it did submit an importer questionnaire on March 9, 2016.

⁷ In the preliminary phase of these investigations, seven producers in China responded to the Commission's questionnaire. *** was the largest responding producer of PET resin in China.

Apparent U.S. consumption of PET resin totaled approximately *** pounds (\$***) in 2014. U.S. producers' U.S. shipments of PET resin totaled *** pounds (\$***) in 2014, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from subject sources totaled *** in 2014 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** pounds (\$***) in 2014 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 2014. U.S. imports, with the exception of imports from Oman, are based on official Commerce statistics. U.S. imports from Oman are based on the questionnaire responses of five firms ***. Foreign industry data for India and Oman are based on responses from producers/exporters in these countries who submitted questionnaire responses in these final investigations while foreign industry data for Canada and China are based on responses from producers/exporters who submitted questionnaires in the preliminary investigations.⁸ Appendix D presents data on nonsubject country prices; appendix E presents data on lost sales and lost revenue allegations from the preliminary phase of the investigations; appendix F presents data on results of operations of U.S. producers' raw materials from related sources reported at cost; appendix G presents data on questionnaire responses of U.S. producers regarding the effects of raw material prices on reported profitability; appendix H presents data on questionnaire responses of U.S. producers regarding actual and anticipated negative effects of subject imports prices on reported profitability; and appendix I presents data questionnaire responses of U.S. producers regarding actual and anticipated negative effects of subject imports.

PREVIOUS AND RELATED INVESTIGATIONS

PET resin has been the subject of one prior countervailing and antidumping duty investigation 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. Commerce terminated the antidumping investigation on imports from Taiwan and the countervailing duty investigation on imports from Thailand. The Commission reached negative injury determinations as to imports from India, Indonesia, and Thailand.⁹

⁸ Foreign producers/exporters of PET resin in Canada and China did not submit questionnaire responses in these final investigations.

⁹ *Polyethylene Terephthalate Resin from India, Indonesia, and Thailand, Investigation Nos. 701-TA-439 and 731-TA-1077, 1078, and 1080 (Final)*, USITC Publication 3769, (2005).

NATURE AND EXTENT OF SUBSIDIES AND SALES AT LTFV

Subsidies

On March 14, 2016, Commerce published a notice in the *Federal Register* of its final determinations of countervailable subsidies for producers/exporters of PET resin from China, India, and Oman.¹⁰ Table I-1 presents Commerce's findings on the rates of PET resin subsidies in China, India, and Oman. With respect to Oman, Commerce found countervailable subsidies are not being provided to producers and exporters of PET resin from Oman.

Table I-1

PET resin: Commerce's final subsidy determinations on China, India, and Oman

Country and Firm	Net subsidy rate (percent)
China	
Jiangyin Xingyu New Material Co., Ltd. Jiangsu Xingye Plastic Co., Ltd. Jiangyin Xingjia Plastic Co., Ltd. Jiangyin Xingtai New Material Co., Ltd., Jiangsu Xingye Polarization Co., Ltd., Jiangsu Sanfangxiang Group Co., Ltd. Jiangyin Hailun Petrochemicals Co., Ltd., Jiangyin Xinlun Chemical Fiber Co., Ltd., Jiangyin Huasheng Polymer Co., Ltd., Jiangsu SanFanxiang International Trading Co., Ltd., Jiangyin HuaYi Polymerization Co, Ltd., Jiangyin Xingsheng Plastic Co., Ltd., Jiangyin Chemical Fiber Co., Ltd., Jiangyin Huaxing Synthetic Co., Ltd., Jiangyin Bolun Chemical Fiber Co., Ltd.; (collectively Xingyu)	6.83
Dragon Special Resin (Xiamen) Co., Ltd.; Xiang Lu Petrochemicals Co., Ltd.; Xianglu Petrochemicals (Zhangzhou) Co., Ltd.; and Xiamen Xianglu Chemical Fiber Company Limited (collectively, Dragon)	47.56
All-Others	27.20
India	
Dhunseri Petrochem Ltd. (formerly Dhunseri Petrochem and Tea Ltd.) (collectively, Dhunseri)	5.12
JBF Industries Limited	153.80
All others	5.12
Oman	
OCTAL SAOC-FZC and OCTAL Holding SAOC	0.59 (de minimus)

Source: 81 FR 13321-13340, March 14, 2016.

¹⁰ *Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from the People's Republic of China: Final Affirmative Determination*, 81 FR 13337, March 14, 2016; *Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India: Final Affirmative Determination and Final Affirmative Critical Circumstances Determination, in Part*, 81 FR 13334, March 14, 2016; and *Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Negative Countervailing Duty Determination*, 81 FR 13321, March 14, 2016.

Sales at LTFV

On March 14, 2016, Commerce published a notice in the *Federal Register* of its final determinations of sales at LTFV with respect to imports from Canada, China, India, and Oman.¹¹ Table I-2 presents Commerce's dumping margins with respect to imports of PET resin from Canada, China, India, and Oman.

Table I-2

PET resin: Commerce's final weighted-average LTFV margins with respect to imports from Canada, China, India, and Oman

Country and Firm	Weighted-average dumping margin (percent)
Canada	
Selenis Canada, Inc.	13.60
All others	13.60
China	
Far Eastern Industries (Shanghai) Ltd. or Oriental Industries (Suzhou) Ltd.	104.98
Jiangyin Xingyu New Material Co., Ltd. or Jiangsu Xingye Plastic Co., Ltd. or Jiangyin Xingjia Plastic Co., Ltd. or Jiangyin Xingtai New Material Co., Ltd. or Jiangsu Xingye Polytech Co., Ltd.	118.32
Dragon Special Resin (XIAMEN) Co., Ltd.	114.47
Hainan Yisheng Petrochemical Co, Ltd.	114.47
Shanghai Hengyi Polyester Fiber Co., Ltd.	114.47
Zhejiang Wankai New Materials Co., Ltd.	114.47
PRC-Wide Entity	126.58
India	
Dhunseri Petrochem, Ltd.	19.41
Ester Industries, Ltd.	14.23
JBF Industries, Ltd.	19.41
Reliance Industries, Ltd.	8.03
All others	11.13
Oman	
Octal SAOC-FZC	7.82
All others	7.82

Source: 81 FR 13319-13337, March 14, 2016.

¹¹ *Certain Polyethylene Terephthalate Resin from Canada: Final Determination of Sales at Less Than Fair Value*, 81 FR 13319, March 14, 2016; *Certain Polyethylene Terephthalate Resin from the People's Republic of China: Final Determination of Sales at Less Than Fair Value*, 81 FR 13331, March 14, 2016; *Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 FR 13327, March 14, 2016; and *Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*, 81 FR 13336, March 14, 2016.

THE SUBJECT MERCHANDISE

Commerce's scope

Commerce has defined 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 0.70, but not more than 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 subheading 3907.60.00.30 of the Harmonized Tariff Schedule of the United States (HTSUS). Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the merchandise under investigation is dispositive.¹²

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under statistical reporting number 3907.60.0030 of the Harmonized Tariff Schedule of the United States ("HTSUS"). The general rate is 6.5 percent ad valorem. PET resin from Canada and Oman are eligible to enter free of duty based on free trade agreements. Table I-3 presents complete current tariff rates for PET resin.

¹² *Certain Polyethylene Terephthalate Resin from Canada, the People's Republic of China, India, and the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value*, 81 FR 13319-13337, March 14, 2016.

Table I-3
PET resin: Tariff rates, 2015

		General ¹	Special ²	Column 2 ³
HTS provision	Article description	Rates (percent <i>ad valorem</i>)		
3907	Polyacetals, other polyethers and epoxide resins, in primary forms; polycarbonates, alkyd resins, polallyl esters and other polyesters, in primary forms:			
3907.60.00	Poly(ethylene terephthalate):	6.5%	Free (A*, AU, BH, CA, CL, CO, E, IL, JO, K, MA, MX, OM, P, PA, PE, SG)	15.4cents/kg +45%
3907.60.0030	Packaging grade (bottle grade and other, with an intrinsic viscosity of 0.70 or more but not more than 0.88 deciliters per gram)		3.9% (KR) ²	
3907.60.0070	Other			

¹ Normal trade relations, formerly known as the most-favored-nation duty rate.

² Special rates apply to imports eligible imports of PET resin from certain trading partners to the United States. A*=Generalized System of Preferences; AU=United States-Australia Free Trade Agreement; BH=United States-Bahrain Free Trade Agreement Implementation Act; CA=North American Free Trade Agreement: Goods of Canada; CL=United States-Chile Free Trade Agreement; CO=United States-Colombia Trade Promotion Agreement Implementation Act; E=Caribbean Basin Economic Recovery Act; IL=United States-Israel Free Trade Area; JO=United States-Jordan Free Trade Area Implementation Act; K=Agreement on Trade in Pharmaceutical Products; MA=United States-Morocco Free Trade Agreement Implementation Act; MX=North American Free Trade Agreement:

Goods of Mexico; OM=United States-Oman Free Trade Agreement Implementation Act; P=Dominican Republic-Central America-United States Free Trade Agreement Implementation Act; PA=United States-Panama Trade Promotion Agreement Implementation Act; PE=United States-Peru Trade Promotion Agreement Implementation Act; SG=United States-Singapore Free Trade Agreement; KR=United States-Korea Free Trade Agreement Implementation Act.

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

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

THE PRODUCT

Description and applications

PET resin is a large-volume, commodity-grade thermoplastic polyester polymer. PET resin is primarily sold in bulk form as chips or pellets to downstream end users/converters. Converters use PET resin to manufacture bottles and other sterile containers that house liquid and solid products for human consumption or contact. Major end-use applications for bottle-grade PET resin include carbonated soft drink (“CSD”) bottles, water bottles, and other containers such as for juices, peanut butter, jams and jellies, salad dressings, cooking oils, household cleaners, and cosmetics. Articles manufactured with PET resin are clear, transparent, sterile, lightweight, and thermally stable. End users also like PET resin for its impact resistance, closure integrity, gas barriers and strength properties. While PET resin is known for its clarity in end-use applications, PET resin pellets themselves are slightly opaque and whitish in color when sold to converters.¹³

The product scope defines packaging-grade PET resin having an intrinsic viscosity (“IV”) of at least 0.70 but not more than 0.88 deciliters per gram.¹⁴ Also included within this scope are all bottle-grade resins containing various additives, including recycled PET, which do not alter the fundamental properties of the subject product. The subject product does not include amorphous (“AMPET”) resin, which has an IV below 0.70 deciliters per gram, and is used either as feedstock for the production of PET resin or is separately processed (spun) into polyester fiber for use in further downstream applications such as carpet, fabric, or fiberfill. Additionally, the subject product excludes certain further-processed PET resins used in applications whose resulting resin have an IV greater than the specified deciliters per gram, such as PET resins destined for tire cord or certain microwaveable trays.¹⁵

The domestic industry subdivides packaging-grade PET resin into two major end-use classifications: “cold-fill” and “hot-fill.” Cold-fill refers to container applications, such as for soda or water, where the substance being filled into the container does not require excessive temperatures in the filling process, i.e., can be filled at an ambient room temperature. Hot-fill refers to container applications, such as for juices or sauces, where the substance being filled

¹³ This discoloration in pellet form is due to part of the manufacturing process. See “Manufacturing Process” section herein.

¹⁴ Statistical note 1 to Chapter 39; Harmonized Tariff Schedule of the United States (2015). Viscosity is determined by ASTM D2857-95 (2001). Viscosity, in general, refers to the resistance of a given material in liquid or molten form to shear or force under defined conditions. A deciliter is a unit of volume defined as one tenth of liter.

¹⁵ Common PET resin applications with such high IVs include tire cord, certain strapping, and most microwaveable containers applications. Any converter purchasing PET resin within the IV packaging-grade range for strapping or microwaveable container applications would be covered by the scope of these investigations for packaging-grade PET resin purchases. However, it is noted that strapping and sheet converters often use scrap, subprime, and recycled resin in such applications.

into the container requires high temperatures¹⁶ in the filling process, analogous to a canning process.¹⁷ Cold-fill PET resin usually has a lower IV range than hot-fill PET resin, however, both fall within the IV range defining the product subject to these investigations. The same equipment and employees produce both hot-fill and cold-fill PET resins. Some additives are incorporated into the melt-phase polymerization stage of production for certain hot-fill resins.

Converters produce bottles and other specialty food containers predominately by an injection stretch blow-molding process. In this process, an intermediate “preform” product is produced by injection molding,¹⁸ 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 U.S. 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.¹⁹ PET resin can also be extruded into sheets of various thicknesses or thermoformed into clear cups, cupcake trays, strawberry clamshells, vegetable containers, *et cetera*. PET resin is also be directly extruded to produce high-strength strapping for industrial uses.

PET resin must be protected from moisture and contamination during transport. Both 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 producers from Canada, China, and India, 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. Cost can vary a great deal depending on logistics of shipping.²⁰

PET resin containers are ideal for recycling back into AMPET resin for polyester fibers applications such as garments, carpets, and fiberfill. Recycled PET resin cannot be directly used

¹⁶ Hot-fill refers to the use of PET resin for products like juices that are filled hot by the bottler.

¹⁷ Hot-fill is distinct from the term “heat-set” which is equivalent to “thermomolding.” A converter of PET resin may design a container to which the converter then applies additional heat and folding to the polymer in order to further modify the container’s physical properties. This process is commonly referred to as heat-set or thermomolding and is not directly analogous to hot-fill applications.

¹⁸ Creating preforms is an intermediate step for producing PET resin bottles. Most U.S. converters that produce the final bottles also produce these intermediate preforms directly from PET resin pellets. However, some converters produce bottle preforms for sale to other converters who then blow those preforms into bottles.

¹⁹ As bottle converters often create the finished bottle product, these must be physically located near their customers, the bottle fillers, because it would be uneconomical to ship empty bottles (mostly air weight) any great distance.

²⁰ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. I-14 and Conference transcript, pp. 90, 94-95 (Behm); pp. 155-156 (Rathore); and p. 156 (Jones).

for the remanufacture of PET resin used for bottles due to impurities that are nearly impossible to remove in the recycling process. However, several domestic producers do blend small amounts of recycled PET resin with virgin PET resin.²¹ 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.²²

Manufacturing processes

Firms manufacture packaging-grade PET resin by submitting AMPET resin to a solid-state polymerization (“SSP”) treatment. In turn, firms manufacture AMPET resin from a controlled chemical reaction between the petro-based chemical terephthalic acid (“TPA”)²³ and the natural gas-based chemical ethylene glycol (“EG”) or (“MEG”)²⁴ in a melt-phase polymerization 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.

Packaging-grade PET resin is produced by submitting AMPET resin to a solid-state polymerization treatment. This SSP treatment 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 para-xylene 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 weight²⁵ and an estimated 75 to 80 percent of PET resin by cost.²⁶ AMPET resin producers usually modify

²¹ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. I-14.

²² PET Resin Association, “Plastics Manufacturers Reconfirm PET Bottles Do NOT Contain BPA,” http://www.petresin.org/news_NoBPainPET.asp, retrieved February 1, 2016.

²³ 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 referred to as PTA, or purified terephthalic acid, 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.

²⁴ Also referred to as “MEG,” or mono ethylene glycol.

²⁵ Pacific Rim Traders, “PET Manufacturing Process,” <http://prtraders.com/index.php/products-specifications>, retrieved February 1, 2016.

²⁶ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. I-15 and Conference transcript, p. 114 (Porter) and p. 36 (Cullen).

polymer properties by incorporating nominal amounts of copolymer chemical reactants such as isophthalic acid (“IPA”) at levels of 2 to 3 percent by weight.²⁷

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.²⁸ Some PET resin producers are partially vertically integrated between feedstocks and PET resin production, while others are not integrated.

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations. Petitioners request that the Commission keep its finding from the preliminary phase of these investigations that there is “a single domestic like product consisting of certain PET resin that is coextensive with the scope of the investigations.”²⁹

²⁷ Copolymer resin is usually demanded by consumers because of improved processing speed and physical properties. Homopolymers define unmodified forms of PET resin.

²⁸ Nitrogen gas of high purity is typically produced onsite by air liquefaction and distillation.

²⁹ Petitioners’ prehearing brief, p. 10.

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 jams are packaged, carpeting, and strapping used on bulk substances 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 somewhat during 2012-14, rising *** percent over the period.

U.S. PURCHASERS

The Commission received 18 usable questionnaire responses from firms that bought PET resin since January 2012.² All the responding purchasers indicated that they were end users³ or other, and none described themselves as distributors.⁴ Six purchasers indicated that they manufactured water bottles, three manufactured carbonated soft drink bottles, three manufactured hot-fill bottles, one manufactured carpeting, and six manufactured sheets and packaging. Two purchasers described themselves as manufacturing other types of bottles, e.g., for milk, detergent, or spirits. *** stated that it is a supplier to other PET resin-using industries. *** stated that it purchases PET resin and then supplies it to a converter that manufactures bottles used in *** filling facilities.

¹ U.S. International Trade Commission, *Polyethylene Terephthalate (PET) Resin From India, Indonesia, and Thailand*, Investigations Nos. 701-TA-439 and 731-TA-1077, 1078 and 1080 (Final), Publication 3769, May 2005, p. II-1; conference transcript, p. 26 (Freeman); and questionnaires submitted in these investigations.

² Of the 18 responding purchasers, 17 purchased domestic PET resin, 6 purchased imports of the subject merchandise from Canada, 6 from China, 5 from India, 5 from Oman, 0 from Korea, 4 from Mexico, 1 from Taiwan, and 2 purchased imports of PET resin from other sources (***). However, purchasers did not always know the origin of the PET resin purchased. *** stated that it did not know. *** noted that it often purchased PET resin from ***. Of the six firms reporting purchases from Canada, four (***) indicated that their supplier had provided or showed them a NAFTA certificate identifying the PET resin as a product of Canada, while two (***) indicated that their supplier had not.

³ *** is a subsidiary of ***. *** is owned by ***. *** is owned by *** and sometimes referred to by producers and importers as ***.

⁴ ***. Purchasers were asked, if they were distributors, whether they competed for sales to customers with their suppliers. Three purchasers (***) answered that they did not. M&G indicated that the role of distributors in the PET resin market is relatively small. Hearing transcript, p. 72 (Adlam). Octal stated that distributors handle shipments to smaller U.S. purchasers. Hearing transcript, p. 215 (Barenberg).

No purchasers reported being related to any PET resin producers or importers. The largest responding purchasers of PET resin include ***, of which all but *** use PET resin for ***.

CHANNELS OF DISTRIBUTION

U.S. producers and importers sold mainly to end users, as shown in table II-1. Producers and subject importers usually listed soda and/or other bottlers as the single largest end-use channel, although imports of PET resin from *** were more prevalent in the distribution channel in some years.⁵

Table II-1

PET resin: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2012-2014, January-September 2014, and January-September 2015

* * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers reported selling PET resin to all regions in the contiguous United States (table II-2). Importers⁶ of subject product did as well, but with some regional emphases. Importers of Canadian PET resin report more sales in the Eastern United States, importers of Chinese PET resin reported more sales in the Eastern, Midwestern, and Pacific regions of the United States, and importers of Indian PET resin reported more sales in the Southeast region of the United States. Importer Pacific Rim described the West Coast as a region of particular emphasis for importers of PET resin. Chinese, Indian, and Omani respondents stated that the U.S. industry, which it described as mostly located in the Southeastern United States, has an advantage in supplying the East Coast and/or large ("Tier 1") end users that want product delivered directly to their facilities by rail.⁷ Chinese, Indian, and Omani respondents added that imports serve the West Coast and/or suppliers that want smaller quantities of PET resin.⁸

⁵ Bottle-making end users either purchase PET resin bottles from converters (firms that make the bottles from PET resin) or produce their own bottles in-house, with larger brand-owners more likely to perform their own conversions. Nan Ya described increased sales to brand owners (i.e., end users) that then arrange for converters to handle the PET resin. Conference transcript, p. 25 (Freeman) and p. 54 (Adlam and Freeman). Other industries (such as the carpet industry) may be less likely to use converters. Conference transcript, pp. 54-56 (Adlam, Cullen, Freeman, and McNaul).

⁶ ***.

⁷ On the other hand, purchaser *** described the U.S. rail industry as concentrated, and concluded that as a result, U.S. producers are vulnerable to price increases by the rail industry. It continued that U.S. producers are unable or unwilling to ship PET resin in big bags, which would allow purchasers to hedge their purchases. See also statements of information from the International Bottled Water Association and Niagara Bottling, LLC, March 8, 2016.

⁸ Postconference brief of Chinese producers, p. 11; postconference brief of Dhunseri, p. 19; and postconference brief of OCTAL, p. 1. Several purchasers, including ***. Petitioners stated that there is

(continued...)

Table II-2

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

Region	U.S. producers	Importers of Canadian product	Importers of Chinese product	Importers of Indian product	Importers of Omani product
Northeast	4	***	5	4	4
Midwest	4	***	3	4	4
Southeast	4	***	4	6	4
Central Southwest	4	***	2	2	3
Mountain	4	***	2	0	3
Pacific Coast	4	***	4	2	4
Other ¹	2	***	0	0	1
All regions (except Other)	4	***	1	0	3
Reporting firms	4	***	6	7	4

¹ All other U.S. markets, including AK, HI, PR, and VI.

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

Regarding geographic limitations on sales of PET resin from different country sources, most firms generally described multiple sources of PET resin as competing across all geographic regions. Some distinctions, often based on railcar availability or limited availability of PET resin from particular countries, are described below.

Producers and importers were also asked to describe why their firms' PET resin was only available in a few geographic regions, if applicable. Most producers and importers did not answer the question. Among those that did, importer *** stated that its PET resin availability was restricted by logistics and transportation costs, and its PET resin was only available in supersacks or bulk, but not by rail. Importer *** stated that its sales to the Rocky Mountain region were generally not competitive with U.S. product due to logistics costs, which also limit its sales to the Midwest. Importers *** also cited logistics and/or transportation costs as limiting their sales to some regions in the United States. Importer *** stated that it does not supply customers interested in railcar shipments with imported PET resin.

Four producers and eight importers stated that their PET resin competes with PET resin from U.S. producers and subject countries in all U.S. geographic regions, while five importers stated that it does not.⁹ Among those five importers, *** cited logistics and transportation costs as a limitation to competition. *** stated that logistics costs make its product available mostly on the U.S. East and West Coasts, but not as much in the Rocky Mountain and Midwest regions. Similarly, *** stated that most of its shipments are to the East Coast, and transportation costs make shipments to the West Coast uncompetitive. *** also described its coastal customers as being more able to obtain imported PET resin than domestic PET resin,

(...continued)

no area of the United States in which they do not compete with imports, and that there is no regional pricing of PET resin. Hearing transcript, p. 44 (Cullen), and p. 98 (Adlam).

⁹ ***.

and added that some of its customers are interested in imports as an alternate source of supply in the event of disasters. *** stated that it does not offer railcar shipments.¹⁰

Most purchasers reported that PET resin from the United States, subject countries, and other sources was available in their firms' geographic regions. Seventeen purchasers stated that U.S. product was available in their geographic region, 16 stated that Canadian product was, 14 stated that Chinese product was, 14 stated that Indian product was, 15 stated that Omani product was, and 9 stated that nonsubject product was. However, *** described U.S. product as less expensive and more available near U.S. producers' plants in the Southeast. *** continued that domestic PET resin is not always available or price competitive in the Pacific Northwest, West, and Southwest. *** also described Chinese, Indian, and Omani imports as more available on the coasts, and for ***, more available in bags. *** added that Canadian product is more available in the Upper Midwest, Mid-Atlantic, and/or Northeast.

For U.S. producers, *** percent of their sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.

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 moderate-to-low 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 limited availability of unused capacity, few shipments to alternate markets, and limited ability to produce other products, tempered somewhat by a limited ability to ship from inventories.

Industry capacity

Domestic capacity utilization was relatively steady at approximately 82 percent from 2012-2014, but rose in January-September 2015 to a level somewhat above its level in the same period of 2014. This moderately high level of capacity utilization suggests that U.S. producers may have a moderate-to-low ability to increase production of PET resin in response to an increase in prices.

¹⁰ In response to another question (see "Competition across end uses" below), *** stated that U.S. producers are mostly based in the Southeast, and their shipments to the West Coast are mostly packaged in supersacks and shipped by rail, making their product more expensive and less desirable to West Coast purchasers. *** stated that it rarely encounters Canadian or Omani product on the West Coast, but added that Mexico was a major source of PET resin in the U.S. market.

*** described U.S. producers' capacity as older and less efficient than newer plants built outside the United States within the last five years. It also stated that the PET recycling rate in the United States is lower than in Europe, and that U.S. producers do not want a higher recycling rate as it would hurt their business.¹¹

Alternative markets

U.S. producers' exports, as a percentage of total shipments, decreased from 8.5 in 2012 to 4.7 in 2014, before rising somewhat in January-September 2015. These levels likely indicate that U.S. producers do not have a high volume of exports to potentially divert back to the U.S. market in the event of rising U.S. prices.

Inventory levels

U.S. producers' inventories increased from *** to *** percent of total U.S. shipments over 2012-14. These inventory levels suggest that U.S. producers may have some limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

Two of four responding U.S. producers stated that they could not switch production from PET resin to other products. Other products that the two other producers reportedly can produce on the same equipment as PET resin are ***. However, these firms stated that doing so would be expensive, or that such switching is limited and already at maximum levels.

Subject imports from Canada¹²

Based on available information, the producer of PET resin in Canada has the ability to respond to changes in demand with small-to-moderate changes in the quantity of shipments of PET resin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the limited availability of unused capacity, limited alternate markets other than the United States and Canada, low inventories, a limited ability to produce alternate products, and uncertainty over the levels of Canadian production due to a lack of responsiveness in this final phase. Developments since the preliminary phase are unknown due to a lack of response from the Canadian producer, as reflected in the discussion below.

¹¹ Additionally, in response to another question, *** described numerous issues with U.S. PET resin producers, including low bargaining power with raw material and rail suppliers, poor geographical distribution of capacity making product less available in some geographic regions, and too much capacity being added. See "Business cycles" below. Indian producer Reliance described the U.S. industry as highly concentrated. Posthearing brief of Reliance, p. 2.

¹² The Commission received no questionnaire responses from Canadian producers in this final phase. In the preliminary phase, the Commission received ***. The information in this section is based on ***.

Industry capacity

According to data submitted in the preliminary phase of these investigations, Canadian capacity *** over 2012-14, and capacity utilization reached *** percent in 2014, indicating a limited ability to increase production of PET resin in response to an increase in prices.

Alternative markets

According to data submitted in the preliminary phase of these investigations, *** Canadian production went to ***, possibly indicating that the Canadian producer has limited ability to shift export shipments ***.

Inventory levels

According to data submitted in the preliminary phase of these investigations, Canadian inventories relative to total shipments fell from *** percent in 2012 to *** percent in 2014, indicating a limited ability to respond to changes in prices with increased shipments out of inventory.

Production alternatives

According to data submitted in the preliminary phase of these investigations, the Canadian producer indicated that it could switch to producing ***, but stated that to do so would be costly.

Subject imports from China¹³

Based on available information, producers of PET resin from China have the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of PET resin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the ability to increase capacity, the existence of alternate markets, and uncertainty over production developments due to a lack of response in this final phase. Developments since the preliminary phase are unknown due to a lack of response from Chinese producers, as reflected in the discussion below.

¹³ In the final phase of these investigations, no Chinese producers submitted foreign producer questionnaires. In the preliminary phase of these investigations, the Commission received *** questionnaire responses from Chinese producers. These firms' exports to the United States accounted for *** percent of U.S. imports of PET resin from China during 2012-14.

Industry capacity

According to data submitted in the preliminary phase of these investigations, Chinese capacity rose by *** percent over 2012-14, with capacity utilization rising from *** percent to *** percent over the same period. While capacity utilization is relatively high, the ability to increase capacity each year suggests that Chinese producers have some ability to respond to changes in price with increased production.¹⁴

U.S. producer DAK described Chinese PET resin investment as “aimless and reckless,” resulting in Chinese producers operating at low levels of capacity utilization.¹⁵ Indian producer Reliance described China as having large downstream industries consuming PET resin.¹⁶

Alternative markets

According to data submitted in the preliminary phase of these investigations, Chinese exports to the United States made up *** percent of total Chinese shipments in 2014. Over 2012-14, usually *** of Chinese producers’ shipments went to their home market while *** went to third-country markets. The large amount of shipments to third-country markets suggests that Chinese producers have some ability to shift sales to the U.S. market if U.S. prices increase.

Inventory levels

According to data submitted in the preliminary phase of these investigations, Chinese inventories were equivalent to *** percent of total Chinese shipments in 2014, indicating some limited ability to respond to changes in price with shipments from inventory.

Production alternatives

According to data submitted in the preliminary phase of these investigations, only two of seven Chinese producers indicated that they could shift their PET resin production to another product, with both citing *** as that product.

¹⁴ In the preliminary phase of these investigations, *** submitted a *** that described the global PET resin market as having a *** capacity against total global demand of ***, and described China’s production capacity, exports, and excess capacity as growing over 2005-14, with Chinese excess capacity reaching *** in 2014. See ***.

¹⁵ Hearing transcript, p. 30 (McNaul).

¹⁶ Hearing transcript, p. 190 (Ravjanshi).

Subject imports from India¹⁷

Based on available information, producers of PET resin from India 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. The main contributing factors to this degree of responsiveness of supply are the demonstrated ability to increase capacity and the existence of alternate markets constrained by *** inventory levels and high capacity utilization.

Industry capacity

Indian producers' capacity utilization was usually above *** percent. Between 2012 and 2013, capacity rose *** percent before falling back somewhat in 2014, and is projected to rise again in 2015 and 2016. These capacity increases indicate the potential to increase production in response to changes in price.¹⁸

Alternative markets

Over 2012-14, Indian producers shipped *** of their shipments to their home market, with most of the remainder (*** percent in 2014) going to third-country markets.¹⁹ The trend during January 2012-September 2015 shows a lower share of home market shipments and a higher share of shipments to third-country markets.

Indian producer Reliance described the Indian home market as having great potential demand due to a growing use of PET resin.²⁰

Inventory levels

Indian inventories were *** percent of total shipments in 2014 (rising to only *** percent in January-September 2015), indicating little room to increase shipments from inventories in response to changes in price.

Production alternatives

*** indicated that *** could switch their production of PET resin to *** and one indicated that it could switch to making ***.

¹⁷ The Commission received four questionnaire responses from Indian producers. The exports of these firms accounted for *** percent of imports of PET resin from India in 2014.

¹⁸ However, Indian producer Reliance stated that Indian transportation infrastructure was not developed enough for shipment in rail containers. Posthearing brief of Reliance, p. 10.

¹⁹ Dhunseri and Reliance Industries described the Indian market for PET resin as growing by 20 percent per year. Postconference brief of Dhunseri, p. 32; and postconference brief of Reliance, p. 2.

²⁰ Prehearing brief of Reliance Industries, p. 44.

Subject imports from Oman²¹

Based on available information, the Omani producer of PET resin has the ability to respond to changes in demand with large changes in the quantity of shipments of PET resin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and the existence of alternate markets or inventories.

Industry capacity

The Omani producer increased its capacity by *** percent from 2012 to 2013, although ***. Capacity utilization was *** percent in 2014, falling to *** percent in January-September 2015, indicating that the Omani producer has substantial ability to respond to changes in price with changes in production.

The Omani producer described Omani production as using a “melt to resin” technology that is more efficient than previous PET resin production technologies.²² It added that its spherical-shaped PET resin was preferred by purchasers because it allowed for easier use.²³ It stated that while it had excess capacity in 2015, it did not increase PET resin or shipments, including to markets in which it faced no trade barriers.²⁴

Alternative markets

Over 2012-14 and January-September 2015, the Omani producer shipped over *** percent of its PET resin to countries other than Oman and the United States, indicating that it would likely have the ability to respond to changes in U.S. prices with increased shipments to the United States.²⁵

Inventory levels

The Omani producer’s inventories relative to total shipments fell from *** percent in 2012 to *** percent in 2014, (rising only slightly to *** percent in January-September 2015), indicating a limited ability to respond to changes in price with shipments from inventory.

²¹ The Commission received ***. ***.

²² Conference transcript, pp. 110-111 (Porter), postconference brief of Octal, exhibit 1, and hearing transcript, pp. 127-128 and 179 (Barenberg). Petitioners described the melt-to-resin technology as not unique (and used by two U.S. producers) nor yielding a higher-quality product. Postconference brief of petitioners, p. 12, and hearing transcript, pp. 29 (McNaul) and 34 (Freeman).

²³ Posthearing brief of Octal, response to questions, p. 8. Petitioners stated that they had produced spherical pellets since 2006. Posthearing brief of petitioners, p. 9.

²⁴ Hearing transcript, p. 145 (Barenberg).

²⁵ On the other hand, Octal described its interests as focused on growing demand in Europe, Africa, and the Middle East. Postconference brief of Octal, p. 36.

Production alternatives

The Omani producer indicated that it *** with the equipment it uses to produce PET resin.²⁶

Nonsubject imports

Nonsubject imports represented between *** and *** percent of U.S. consumption over 2012-14. Mexico was the single largest source of U.S. imports (larger than any individual subject country) followed by the subject countries as well as Taiwan, Indonesia, and Pakistan.

In the preliminary phase, parties disagreed over the importance of nonsubject imports in the U.S. market. Reliance described U.S. producers' affiliated production in Taiwan, Indonesia, and especially Mexico as a "critical condition of competition" in the U.S. PET resin market.²⁷ Respondents generally described Mexican imports as controlled by the U.S. industry (due to cross-ownership) and growing over 2012 through 2014.²⁸ However, M&G (owner of a Mexican PET resin plant) described its prices for U.S. sales of Mexican product as comparable to those of U.S. product. It added that imports from its Mexican plant would soon be displaced by production from its new plant under construction in Corpus Christi, Texas, while its Mexican production becomes more focused on the Mexican market.²⁹

New suppliers

Thirteen purchasers reported that they were not aware of any new suppliers in the U.S. market since January 1, 2012. Five purchasers cited Octal, Chinese and other Asian suppliers, and a Brazilian supplier as new suppliers to the U.S. market.

Product and supply changes

Four producers and *** importers stated that there had not been any significant changes in the product mix, range, or marketing of PET resin since January 1, 2012. However, *** stated that *** its product was higher quality and more consistent than U.S. product and ***. *** stated that it had moved from a *** to a *** PET resin, and had begun ***. However, it added that ***. *** stated that one new PET resin product was 5-gallon grade and extrusion blow molding grade used in bottles with handles. ***.

Producers and importers were also asked if their firm had refused or been unable to supply any customers since January 1, 2012. Three producers and 11 importers answered that there had not been any such supply disruptions, but *** and five importers indicated that they had experienced such disruptions. *** stated that a major raw material supplier declared force

²⁶ ***. Posthearing brief of petitioners, p. 11.

²⁷ Postconference brief of Reliance, p. 5.

²⁸ Conference transcript, pp. 92 (Behm) and 122 (Rajvanshi).

²⁹ Conference transcript, pp. 30, 40, and 79 (Adlam).

majeure in 2014, causing PET resin supply disruptions ***. Importer *** stated that ***. *** cited a ***, and *** described several raw material-induced force majeure events since 2012. *** stated that its supplier (***) had been unable to supply it at several points in the last few years.

Fourteen purchasers indicated that they had not experienced any supply constraints for PET resin since January 1, 2012. Five did experience supply constraints, with four (including one that did not report supply constraints) reporting that the fire at BP's PTA facility (see Part V) had caused or threatened to cause supply disruptions. *** described port congestion in Los Angeles, CA as having disrupted supply of imported PET resin. Additionally, throughout its purchaser questionnaire, *** described both U.S. producers and foreign producers as having added substantial capacity while adding that U.S. producers did not have enough capacity to supply the West Coast.

Nine purchasers described the availability of U.S. produced PET resin as having changed since January 1, 2012, and eight stated that it had not. Those purchasers describing a change noted both capacity increases (such as the anticipated expansion of PET production in Texas) and capacity decreases as plants were closed.

Seven purchasers stated that the availability of subject imports had changed over the same period, and five stated that it had not. Those describing changes were unanimous in describing increased imports and/or increased foreign capacity. Three purchasers reported that the availability of nonsubject imports changed over the same period (with all describing increases in imports or foreign capacity), and six stated that it had not.

U.S. demand

Based on available information, the overall demand for PET resin is likely to experience low-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 end-use products in which it is used. Demand for PET resin is a derived demand that depends upon 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

U.S. demand for PET resin depends on the demand for U.S.-produced downstream products. In the preliminary phase, U.S. producers reported that end uses for PET resin 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). Chinese producers described hot-fill PET resin as a growing demand segment because it allows liquids to be

bottled without the need to add preservatives.³⁰ OCTAL stated that it does not produce PET resin for hot-fill applications.³¹ However, petitioners stated that PET resin customers are not divided between hot-fill and cold-fill applications.³²

Competition across end uses

Most producers and importers indicated that their firms' PET resin competes with other PET resin from U.S. producers, Canada, China, India, and Oman. *** producers indicated that PET resin from all the above listed sources competes with their PET resin in all end uses. Among importers, 11 indicated that U.S. PET resin does, 10 indicated that Canadian PET resin does, 10 indicated that Chinese PET resin does, 11 indicated that Indian PET resin does, and 8 indicated that Omani PET resin does.

A few importers did not agree. *** stated that imported PET resin does not compete with U.S. PET resin in the hot-fill bottle market. *** stated that U.S. producers are mostly based in the Southeast, and their shipments to the West Coast are mostly packaged in supersacks and shipped by rail, making their product more expensive and less desirable to West Coast purchasers. *** stated that it rarely encounters Canadian or Omani product on the West Coast, but added that Mexico was a major source of PET resin in the U.S. market. *** stated that many PET resins do not compete with other PET resin in all end uses: U.S. PET resin because it is inferior in clarity and processability to some imported PET resin; Chinese PET resin because it is not qualified in hot fill applications; Indian PET resin because, except for one superior grade, it does not have high enough clarity for some applications; Omani PET resin because it provides greater heat savings in processing; and Korean PET resin because it is of higher clarity than other products.

Purchasers were asked if PET resin from various country sources had been offered to them in all their firm's end uses. Fifteen purchasers stated that PET resin from the United States had been offered, nine stated that product from Canada had, six stated that product from China had, six stated that product from India had, eight stated that product from Oman had, and six stated that product from other countries had been offered.

Cost share

PET resin accounts for a large share of the cost of the end-use products in which it is used, somewhat depending on how the end-use product is defined. For example, PET resin is a smaller share of the cost of a bottled beverage than it is the share of the cost of a bottle. In the preliminary phase, ***.³³

³⁰ Postconference brief of Chinese producers, p. 2.

³¹ Hearing transcript, p. 174 (Barenberg).

³² Postconference brief of petitioners, p. 13, and hearing transcript, pp. 33 (Freeman), 44 (Cullen), and 46 (Cannon).

³³ Email from ***.

Producers and importers were asked to estimate the percentage of the total cost of various products for which PET resin accounted.³⁴ For bottles without liquid, five producers or importers indicated that PET resin was 60-95 percent of the cost, while three indicated PET resin was 21-40 percent of the cost. For the cost of a bottle including the liquid inside, five producers or importers estimated that PET resin accounted for 15-50 percent of the cost. For carpet, most responding producers or importers indicated that PET resin accounted for 40-95 percent of the cost, although *** indicated the cost was only 15 percent. For rolls of PET sheet, five producers or importers indicated the cost was 65 to 100 percent of the total cost, but *** estimated the PET resin cost share was only 5 to 25 percent. For PET strapping, *** estimated PET resin cost shares of 60-95 percent, while *** estimated shares of ***.³⁵

Purchasers also provided cost share estimates for products made of PET resin. For water bottles, three purchasers estimated the PET resin share of the cost of a water bottle at 19-32 percent, although *** estimated 84 percent. For other beverage bottles, purchaser estimates ranged from 20 to 70 percent. For food service and flexible packaging (including clamshells), four purchasers estimated the PET resin cost share at 50 to 80 percent. For carpeting and most films, purchasers estimated the PET resin cost share was 50 to 75 percent.

Business cycles

Most producers and some importers report that the PET resin market did not have distinctive or changing business cycles, but a majority of importers and purchasers did describe seasonal business patterns.³⁶ Three U.S. producers, *** importers, and three purchasers indicated that the U.S. PET resin market was not subject to distinctive business cycles or conditions of competition. However, one producer, *** importers, and fifteen purchasers stated that there were distinctive business cycles, especially seasonal cycles. One producer, *** importers and ten purchasers stated that PET resin demand was higher during spring and summer, as more bottles are consumed for beverages.³⁷ Importer *** stated that long-term demand for carbonated soft drink bottles was declining while water bottle demand was increasing.

Purchasers were asked if U.S. producers' relationships with foreign producers was a distinctive condition of competition in the U.S. PET resin market. Three purchasers stated that it was, including ***, which stated that U.S. producers have foreign operations. *** described all the U.S. producers as "foreign-owned entities with foreign-owned operations."

Purchasers were also asked if PET resin prices being based on changing raw material prices was a distinctive condition of competition in the U.S. PET resin market. Twelve answered

³⁴ In this discussion, ***.

³⁵ Other end uses listed by importers included building products (estimated PET resin cost share 50 percent), packaging (95 percent), and PET concentrates (30 percent).

³⁶ Additionally, four producers and 18 importers stated that the PET resin market is not subject to other distinctive conditions of competition.

³⁷ Though market participants offered different reports on exactly which months had higher demand, they usually described the demand as being greater in summer months.

that it was, and described the prices of petroleum-based monoethylene glycol (MEG) and purified terephthalic acid (PTA) as driving PET resin prices, sometimes with severe fluctuations due to supply and demand conditions in the crude oil and gasoline markets. See Part V for more information on raw materials.

Six purchasers described other distinctive conditions of competition in the U.S. PET resin market. *** cited lightweighting of bottles, *** cited competition with cotton in textile end-use applications, and *** also cited switches in the end use material used. *** described numerous issues with U.S. PET resin producers, including low bargaining power with raw material and rail suppliers, poor geographical distribution of capacity making product less available in some geographic regions, and too much capacity being added.

When asked if there had been any changes to the business cycles or conditions of competition for PET resin since January 1, 2012, two producers, *** importers, and six purchasers stated that there had not been, but one producer, *** importers, and nine purchasers stated that there had been changes. *** stated that foreign production exceeds foreign demand, leading to foreign suppliers supplying excess capacity into the U.S. market. It continued that when Oman lost its GSP (Generalized System of Preferences) privileges in Europe, its producer began shipping product to the United States. Three importers identified increased PET resin capacity either globally or in the United States (or both).

Among purchasers describing changes to the business cycles or conditions of competition for PET resin, *** stated that the traditional higher demand during water bottle season did not materialize in the last two years due to lightweighting of bottles. *** described increased supply, along with increased use of recycled PET resin instead of new PET resin as increasing competition among suppliers. *** described increasing PET resin supply and lower oil prices as lowering the price of PET resin. It also added that over the last 10 years, large bottlers have become vertically integrated and buy their own PET resin rather than buying from converters. *** described numerous issues with U.S. producers, including the decreased differentiation in quality among suppliers.

Demand trends

Most firms reported an increase in U.S. demand for PET resin since January 1, 2012 (table II-3). However, producers *** reported that the demand increase was low or minimal. *** described PET resin demand as mature, and restrained recently by increased lightweighting.³⁸ Petitioners described demand as increasing in some segments (water bottling, thermoformed clamshell packaging, and carpets) while declining in the soft drink segment.³⁹

³⁸ However, at the hearing, Nan Ya and M&G described the majority of lightweighting as having occurred before 2012. Hearing transcript, p. 56 (Freeman) and p. 101 (Adlam).

³⁹ Conference transcript, pp. 63-64 (Adlam and Cullen).

Table II-3

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

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	3	1	0	0
Importers	***	***	***	***
Purchasers	10	0	4	1
Demand outside the United States				
U.S. producers	4	0	0	0
Importers	***	***	***	***
Purchasers	8	0	3	1

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

Among importers, *** indicated the general economic growth and increased demand for recyclable bottle materials had led to increased demand for PET resin. Importer *** stated that increased lightweighting had offset the increased volume of bottles in terms of consumption of PET resin. Importer *** described increased demand due to expanded uses for PET resin.

Among purchasers, those reporting increased U.S. demand cited general economic growth as well as consumer preferences. Those reporting decreased U.S. demand cited lightweighting. In addition, 10 purchasers reported that demand for their firm's final products incorporating PET resin had increased, three reported it had fluctuated, two reported it had not changed, and two reported it had decreased. Fifteen purchasers indicated that these changes in demand for their firms' final products incorporating PET resin had affected their demand for PET resin, adding that the scale and direction of the change in one was reflected in the change in the other.

*** producers described increased demand in other countries as small, while *** stated that demand in developing countries such as China and India was growing faster than in developed regions such as Europe. At the hearing, DAK indicated that global PET resin consumption is growing 4-5 percent per year, while U.S. consumption is growing 2-3 percent per year.⁴⁰

Respondents and importers often described foreign PET resin demand as growing quickly due to foreign economic growth and new uses for PET resin.⁴¹ Importer *** described demand growth in developing countries as "significant" due to economic growth in those countries. Importer *** noted that lower PET resin feedstock prices have also driven increased consumption, with lower prices coming from lower oil prices and increased Chinese feedstock supply. Indian producer described the potential demand in India as larger than current Indian capacity if Indian per capita PET resin consumption moved to U.S. levels.⁴² Purchasers cited the same reasons for increased or decreased demand overseas as they did for U.S. growth (i.e., general economic growth and consumer preferences for increased demand versus lightweighting for decreased demand).

⁴⁰ Hearing transcript, p. 81 (McNaull).

⁴¹ For example, see hearing transcript, p. 134 (Nolan).

⁴² Hearing transcript, p. 152 (Rajvanshi).

Substitute products

Substitutes for PET resin are limited. Three U.S. producers, *** importers, and 14 purchasers reported that there were no substitutes. U.S. producer (***) named glass bottles, metal containers, and other polymers as potential substitutes, but added that none of those products had seen price changes that affected the price of PET resin. *** importers named substitutes including glass and metal for bottle applications; recycled PET flakes and pellets for multiple applications; and polystyrene and PET rollstock for thermoformed containers. Four purchasers also named substitutes: polypropylene in cups, deli containers, and carpet; metal cans instead of plastic bottles; nylon and polyester staple in carpet; polyolefin resin in water and hot-fill bottles; and high-density polyethylene (HDPE) in gallon containers. Only one purchaser indicated that changes in the price of one of these substitutes, HDPE, had affected the price of PET resin, citing the falling price of HDPE due to a slight decline in the price of one of its feedstocks, ethylene.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported PET resin depends upon such factors as relative prices, quality, and conditions of sale. Based on available data, staff believes that there is a moderate-to-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 approximately *** percent of their sales came from inventories, with lead times of between *** days. The remaining sales were produced-to-order, with lead times between *** days.

Importers of PET resin reported that *** percent of their sales came from their U.S. inventories, with lead times of usually ***, although two importers reported lead times of *** days. Importers reported that another *** percent of their sales came from foreign inventories, with lead times of *** days. The balance of importers' sales were produced-to-order, with lead times of ***.⁴³

Knowledge of country sources

Seventeen purchasers indicated they had marketing/pricing knowledge of domestic PET resin, 8 of Canadian PET resin, 9 of Chinese PET resin, 9 of Indian PET resin, 11 of Omani PET resin, and 8 of PET resin from nonsubject countries. Purchasers listed knowledge of nonsubject

⁴³ The shorter time range for sales produced to order than sales from foreign inventories is due to ***. ***.

countries including Brazil, Egypt, EU countries, Indonesia, Korea, Mexico, Pakistan, Taiwan, and Thailand.⁴⁴

As shown in table II-4, purchasers offered a variety of answers as to whether they made purchasing decisions based on producer. However, a large majority of purchasers responded that they only “sometimes” or “never” make decisions based on the country of origin of the PET resin, and their customers do the same for both producer and country of origin. Purchasers listed numerous reasons why they may make a decision based on producer, including quality, meeting specifications, ability to ship by bulk rail (only from domestic producers), price, service, social responsibility, lead time, relationship, qualification as a supplier, and the producer’s financial health. Purchasers listed fewer reasons why their customers might make decisions based on the PET resin producer, citing packaging and sustainability requirements as well as customer preference and loyalty.

Table II-4
PET resin: Purchasing decisions based on producer and country of origin

Purchaser/Customer Decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	7	3	6	4
Purchaser’s customers make decision based on producer	0	0	5	5
Purchaser makes decision based on country	2	3	8	5
Purchaser’s customers make decision based on country	0	0	2	7

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

Purchasers were also asked if they or their customers ever specifically order PET resin from one country source over other sources of supply. Eleven (including ***) did not, but seven did. Of those seven, six indicated that they ordered U.S. product for reasons including quality, delivery, familiarity, technical support, availability, product range, and reliability of supply. *** indicated that customer specifications mandate purchases from one source, but did not indicate which one.

Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for PET resin were quality,⁴⁵ price, and availability, as shown in table II-5. Quality was the most

⁴⁴ *** indicated that it purchased from distributors and did not know the country of origin of its purchases.

⁴⁵ Purchasers defined quality to include numerous chemical properties, such as color, viscosity, contamination, melting point, and moisture content. Purchasers also defined quality to include processing stability and packaging. Octal described PET resin as often being sold with a data sheet on its properties, with intrinsic viscosity being the most important property. Hearing transcript, p. 221 (Barenberg).

frequently cited first-most important factor, followed by price. However, price was cited as one of the top three factors more than any other factor.⁴⁶

Table II-5

PET resin: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Quality	7	5	2	14
Price	4	8	4	16
Availability	3	1	3	7
Meeting specifications	2	0	0	2
Relationship	1	0	0	1
Suppliers' cost structure	1	0	0	1
Contract	0	1	2	3
Credit terms	0	1	2	3
Service	0	1	0	1
Hedging options	0	1	0	1
Reliability	0	0	3	3
Variety of sources	0	0	2	2
Delivery	0	0	3	3

Note.--Other factors listed include packaging and ability to ship to the Midwest in bulk.

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

Seven purchasers indicated that they usually purchase the lowest-priced PET resin for their purchases, and six stated that they sometimes do. Only two indicated that they always do, and only three indicated that they never do.

When asked if they purchased PET resin from one source although a comparable product was available at a lower price from another source, seven purchasers reported reasons including lead time, packaging (bag/supersack versus bulk rail or bulk truck), supply assurance, quality, availability, delivery, hedging, and disaster recovery plan.

Fourteen purchasers reported that there were not any types of PET resin that were only available from a single source. Three did report such types, naming particular products from Nan Ya's domestic production and other specialty resins from U.S. producers.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 16 factors in their purchasing decisions (table II-6). Price was listed as important by all purchasers, followed by availability (17 purchasers), reliability (16), and product consistency (15).

⁴⁶ At the hearing, counsel for respondents stated that purchasers were also looking for alternative sources of supply due to concerns over market concentration among PET resin suppliers. Hearing transcript, pp. 134 and 164 (Nolan).

Table II-6

PET resin: Importance of purchase factors, as reported by U.S. purchasers, by factor

Factor	Very important	Somewhat important	Not important
Availability	17	1	0
Delivery terms	12	5	1
Delivery time	12	4	2
Delivery by rail	6	7	5
Discounts offered	7	7	4
Extension of credit	10	7	1
Minimum quantity requirements	0	9	9
Packaging	5	10	3
Price	18	0	0
Product consistency	15	3	0
Product range	5	9	4
Quality exceeds industry standards	8	4	6
Quality meets industry standards	14	3	1
Reliability of supply	16	2	0
Technical support/service	5	10	3
U.S. transportation costs	8	3	5

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

Supplier certification

*** responding purchasers require their suppliers to become certified or qualified to sell PET resin to their firm. Eight purchasers reported that the time to qualify a new supplier ranged from 60 days to one year, while four reported that it ranges of 7 to 30 days.⁴⁷ Purchaser qualification processes involved examining numerous criteria, including chemical specifications, production certifications, and delivery methods. Many purchasers reported testing small lots and samples of PET resin as part of the process.

Twelve purchasers reported that no domestic or foreign supplier had failed in its attempt to qualify product, or had lost its approved status since January 1, 2012. However, five did. Of those five, *** reported not certifying *** from ***. *** stated that it had not qualified material from ***. *** indicated that *** it had not certified material from *** to be used in ***. Similarly, *** reported not qualifying PET resin from *** because ***. *** reported testing ***.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2012 (table II-7). Purchasers cited pricing and a U.S. producer moving its supply source to Mexico as reasons for decreased purchases of U.S. product. On the other hand,

⁴⁷ Others reported varying times.

purchasers indicating increased purchases of U.S. PET resin cited demand growth. Reasons cited for fluctuating purchases of U.S. product included demand and pricing as long as other standards are met. Reasons reported for changes in sourcing of imported PET resin included price (cited in 10 instances), demand changes (2 instances) and trial orders (2 instances).

Table II-7

PET resin: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	0	5	4	5	4
Canada	8	2	0	0	4
China	7	3	1	0	3
India	8	2	1	0	2
Oman	7	2	2	0	1
Korea	11	0	0	0	0
Mexico	8	0	1	1	2
Taiwan	9	0	1	1	0
All other	8	2	0	0	2
Sources unknown	7	1	1	0	1

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

Thirteen responding purchasers reported that they had changed suppliers since January 1, 2012, while only five indicated that they had not.⁴⁸ Specifically, firms dropped or reduced purchases from both domestic and foreign suppliers, most often for reasons of price or “competitiveness.” *** both reported having stayed with a domestic supplier *** for the bulk of their purchases, but switching among smaller suppliers for the balance of their purchases. Among numerous other examples of switching suppliers, *** reported replacing *** due to competitiveness, while *** reported replacing ***. *** also reported dropping ***.

Importance of purchasing domestic product

Thirteen purchasers reported that purchasing U.S.-produced product was not an important factor in their purchasing decisions for at least 90 percent of the PET resin purchased by their firms. No purchasers reported that domestic product was required by law for any of their purchases, four purchasers reported it was required by their customers (for 4 to 20 percent of their purchases), and five purchasers (***) reported other preferences for domestic product for at least 96 percent of their purchases. Reasons cited for preferring domestic product included ***, supply reliability, and qualification only of U.S. product.

⁴⁸ Four purchasers indicated that they had only purchased from U.S. producers, citing reasons such as geographical location and inaugurating purchases of PET resin. *** indicated that it had only purchased from a Mexican producer due to geographic considerations.

Delivery by rail

PET resin can be delivered to a purchasers' facility by rail car, in truckloads, or in supersacks. Domestic producers shipped *** share of their product for U.S. consumption by rail, ***. At the hearing, parties differed over the importance of rail to purchasers. Respondents described delivery by rail as an option few importers can meet due to the volume requirements, and thus an advantage for domestic producers.⁴⁹ Petitioners described the part of the market served only by rail as small, and stated that rail delivery requirements do not preclude imports from competing in the U.S. market.⁵⁰ See parts III and IV for more information on shipments by rail from various sources.⁵¹

Commission questionnaires asked purchasers to elaborate on the importance of the ability to secure product by rail. Some purchasers described rail delivery as a specialty of domestic producers, and others stated that domestic producers preferred rail delivery to delivery by supersack, charging more for the latter.

Purchasers were asked if their firm has the capacity to have its PET resin purchases delivered by rail car. Ten answered that they did, and eight answered that they did not. Those that did reported a wide range (10-100 percent) of their total PET resin delivered by rail car. Most purchasers receiving rail delivery stated that only U.S. and sometimes Canadian firms could ship by rail. *** stated that ***.

Purchasers were also asked if there were any other transportation-related issues that affect the supply of PET resin. Eleven stated that there were not, but seven stated that there were. Those seven described rail costs due to rail companies' perceived bargaining power, rail and trucking delays, and port strikes.

Purchasers were asked whether their firm has the capacity to receive PET resin in multiple delivery forms. Fifteen purchasers indicated that they did, and only three indicated that they did not. Purchasers described receiving shipments by railcar, truck (bulk), and in supersacks. Four purchasers indicated that they preferred receiving shipments by rail. However, as noted above, not all purchasers can receive shipments by rail.

⁴⁹ Hearing transcript, pp. 16 and 169 (Nolan) and pp. 142, 170, 181, and 215 (Barenberg). In its posthearing brief, Octal stated that while it also reported some shipments by rail, these shipments were of "regular" containers and not via the specialized rail cars and dedicated infrastructure that large volume purchasers demand. Posthearing brief of Octal, response to questions, p. 4.

⁵⁰ M&G described purchasers as able to shift between various methods of delivery, including rail, package, bulk, and sea bulk. DAK and M&G stated that delivery method often depends on the distance from the customer. Hearing transcript, p. 45 (Cullen), p. 63 (Adlam), and p. 69 (Adlam and McNaul). Similarly, Octal described shipping methods varying by the distance to customer and the size of the shipment. Hearing transcript, p. 182 (Barenberg).

⁵¹ See also prehearing brief of Reliance at p. 18 and exhibit 5 and prehearing brief of petitioners at pp. 27-28.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing PET resin produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 16 factors for which they were asked to rate the importance (table II-8). For most comparisons of U.S. product with imported product, a majority of responding purchasers indicated that U.S. product and imported product were comparable. However, for delivery by rail, delivery time, and technical support, a majority of responding purchasers indicated that U.S. product was superior to imports from at least some import sources, not including Canada. Similarly, for comparisons among imported product, a majority of responding purchasers indicated that product across import sources was usually comparable, except that Canadian product was superior to other imported product in delivery time, ability to ship by rail, and technical support.

Table II-8

PET resin: Purchasers' comparisons between U.S.-produced and imported product

Factor	U.S. vs. Canada			U.S. vs. China			U.S. vs. India		
	S	C	I	S	C	I	S	C	I
Availability	2	8	0	1	5	2	3	5	1
Delivery terms	1	8	0	2	5	0	3	5	0
Delivery time	3	7	0	5	2	1	5	3	1
Ability to ship by rail	2	8	0	6	1	1	7	1	1
Discounts offered	1	6	0	0	5	0	0	6	0
Extension of credit	3	6	0	3	4	1	3	5	1
Minimum quantity requirements	1	7	1	1	4	2	1	5	2
Packaging	0	8	0	2	3	1	3	3	1
Price ¹	4	6	0	1	4	2	1	4	3
Product consistency	0	8	0	0	6	0	0	7	0
Product range	1	8	0	0	7	0	0	8	0
Quality exceeds industry standards	0	9	0	0	7	0	0	8	0
Quality meets industry standards	0	9	0	0	7	0	0	8	0
Reliability of supply	4	5	0	2	4	1	4	5	0
Technical support/service	2	7	0	4	2	1	5	3	1
U.S. transportation costs ¹	3	5	0	1	3	2	1	4	2
Factor	U.S. vs. Oman			U.S. vs. nonsubject			Canada vs. China		
	S	C	I	S	C	I	S	C	I
Availability	4	5	0	0	6	1	1	3	1
Delivery terms	3	5	0	2	4	0	0	4	0
Delivery time	5	3	1	3	3	1	3	2	0
Ability to ship by rail	7	0	1	5	1	1	4	1	0
Discounts offered	0	6	0	0	6	0	0	4	0
Extension of credit	1	6	1	0	6	1	0	4	1
Minimum quantity requirements	1	5	2	0	6	1	0	4	1
Packaging	3	4	2	3	3	1	1	3	1
Price ¹	2	3	4	1	5	1	0	4	1
Product consistency	1	7	0	0	7	0	0	5	0
Product range	0	8	1	0	6	1	0	5	0
Quality exceeds industry standards	0	7	1	0	7	0	0	5	0
Quality meets industry standards	0	7	1	0	7	0	0	5	0
Reliability of supply	4	3	1	2	5	0	0	4	1
Technical support/service	5	2	1	2	4	1	3	2	0
U.S. transportation costs ¹	2	3	2	1	4	1	0	3	1

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

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

Table continued on next page.

Table II-8.--Continued

PET resin: Purchasers' comparisons between U.S.-produced and imported product

Factor	Canada vs. India			Canada vs. Oman			Canada vs. nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	0	5	1	0	4	1	0	4	1
Delivery terms	1	4	0	1	3	0	1	3	0
Delivery time	3	3	0	3	2	0	2	2	0
Ability to ship by rail	5	1	0	5	0	0	4	1	0
Discounts offered	0	5	0	0	4	0	0	4	0
Extension of credit	0	5	1	0	4	1	0	4	1
Minimum quantity requirements	1	4	1	1	3	1	0	4	1
Packaging	2	3	1	2	2	1	2	2	1
Price ¹	0	4	2	0	3	2	0	3	2
Product consistency	0	6	0	0	5	0	0	5	0
Product range	0	6	0	0	5	0	0	5	0
Quality exceeds industry standards	0	6	0	0	5	0	0	5	0
Quality meets industry standards	0	6	0	0	5	0	0	5	0
Reliability of supply	1	4	1	1	4	0	1	3	1
Technical support/service	2	4	0	2	3	0	2	3	0
U.S. transportation costs ¹	1	3	1	1	2	1	0	3	1
Factor	China vs. India			China vs. Oman			China vs. nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	1	5	0	1	3	0	1	4	0
Delivery terms	0	5	0	0	3	0	0	4	0
Delivery time	1	5	0	0	4	0	0	5	0
Ability to ship by rail	0	6	0	0	4	0	0	5	0
Discounts offered	0	5	0	0	3	0	0	4	0
Extension of credit	0	6	0	0	4	0	0	5	0
Minimum quantity requirements	0	6	0	0	4	0	0	5	0
Packaging	0	6	0	0	4	0	0	5	0
Price ¹	0	6	0	0	4	0	1	5	0
Product consistency	0	6	0	0	4	0	0	5	0
Product range	0	6	0	0	4	0	0	5	0
Quality exceeds industry standards	0	6	0	0	4	0	0	5	0
Quality meets industry standards	0	6	0	0	4	0	0	5	0
Reliability of supply	1	5	0	1	3	0	1	4	0
Technical support/service	0	6	0	0	4	0	0	5	0
U.S. transportation costs ¹	0	6	0	0	4	0	0	5	0

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

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

Table continued on next page.

Table II-8 --Continued

Product: Purchasers' comparisons between U.S.-produced and imported product

Factor	India vs. Oman			India vs. nonsubject			Oman vs. nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	1	4	0	0	5	1	0	3	1
Delivery terms	0	4	0	0	5	0	0	3	0
Delivery time	0	4	1	0	6	0	0	4	0
Ability to ship by rail	0	5	0	0	6	0	0	4	0
Discounts offered	0	4	0	0	5	0	0	3	0
Extension of credit	0	5	0	0	6	0	0	4	0
Minimum quantity requirements	0	5	0	0	6	0	0	4	0
Packaging	0	5	0	0	6	0	0	4	0
Price ¹	0	5	0	0	6	0	0	4	0
Product consistency	0	5	0	0	6	0	0	4	0
Product range	0	5	0	0	6	0	0	4	0
Quality exceeds industry standards	0	5	0	0	6	0	0	4	0
Quality meets industry standards	0	5	0	0	6	0	0	4	0
Reliability of supply	1	4	0	0	6	0	0	3	1
Technical support/service	0	5	0	0	6	0	0	4	0
U.S. transportation costs ¹	0	5	0	0	6	0	0	4	0

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

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

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

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

In order to determine whether U.S.-produced PET resin can generally be used in the same applications as imports from Canada, China, India, and Oman, U.S. producers, importers, and purchasers were asked whether the products can "always," "frequently," "sometimes," or "never" be used interchangeably. As shown in table II-9, most U.S. producers, importers, and purchasers found PET resin from all sources to be "always" or "frequently" interchangeable.

At the conference, Nan Ya described U.S. product and subject imports as "chemically identical" and qualified by the major brand owners/purchasers.⁵² However, Pacific Rim stated that subject imports' substitutability with U.S. product is limited because subject imports (particularly from China) do not compete in all PET resin applications, and even when they do compete in an application, purchasers are reluctant to rely exclusively on subject imports (due to their production being far away).⁵³ Indian producers also described Indian product as not

⁵² Conference transcript, pp. 28 (Freeman) and 67 (McNaull).

⁵³ Conference transcript, pp. 94-95 (Behm) and p. 127 (Mendoza).

able to compete with U.S. product in all applications, including hot-fill applications.⁵⁴ Similarly, Chinese producers described Chinese product as uncompetitive in hot-fill applications.⁵⁵ Respondents also stated that purchasers look at how consistently a particular supplier's PET resin works in their application.⁵⁶ Selenis stated that purchasers prefer its product and are willing to pay a modest premium for it, not only because it handles better in initial use, but also because of its clarity and brightness.⁵⁷

Table II-9

PET resin: Interchangeability between PET resin produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Canada	3	1	0	0	***	***	***	***	10	2	2	0
U.S. vs. China	3	1	0	0	7	6	0	1	7	1	4	0
U.S. vs. India	3	1	0	0	8	5	0	1	9	0	3	0
U.S. vs. Oman	3	1	0	0	8	6	0	1	9	0	3	1
Subject countries comparisons:												
Canada vs. China	3	1	0	0	6	5	0	1	6	1	1	0
Canada vs. India	3	1	0	0	7	5	0	1	8	0	1	0
Canada vs. Oman	3	1	0	0	7	5	0	1	7	0	1	1
China vs. India	3	1	0	0	6	5	0	1	6	1	1	0
China vs. Oman	3	1	0	0	6	5	0	1	6	0	1	1
India vs. Oman	3	1	0	0	7	5	0	1	7	0	1	1
Nonsubject countries comparisons:												
U.S. vs. nonsubject	3	1	0	0	8	6	0	1	8	0	3	0
Canada vs. nonsubject	3	1	0	0	7	5	0	1	7	0	1	0
China vs. nonsubject	3	1	0	0	6	6	0	1	5	1	1	0
India vs. nonsubject	3	1	0	0	7	5	0	1	7	0	1	0
Oman vs. nonsubject	3	1	0	0	7	5	0	1	6	0	2	0

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

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

⁵⁴ Conference transcript, p. 117 (Esserman). See also postconference brief of Dhunseri, p. 4; and postconference brief of Reliance, p. 23.

⁵⁵ Postconference brief of Chinese producers, p. 12.

⁵⁶ Conference transcript, pp. 149-151 (Alarcon, Behm and Jones). Petitioners described the qualification process for hot-fill applications as no more strenuous than for other applications, and stated that many importers are qualified to supply PET resin for hot-fill applications to U.S. purchasers. Postconference brief of petitioners, p. 13.

⁵⁷ Postconference brief of Selenis, p. 3.

In further comments, importer *** stated that some imported products have better clarity, processability, lower heat consumption, and less dust than domestic product. Purchaser *** described Octal's product as having a darker color due to Octal's melt-to-resin technology. It continued that the darker color affected interchangeability in some customer markets, but not in the bottle and carpeting markets. Purchaser *** stated that product quality limited interchangeability of U.S. and Chinese PET resin. Purchaser *** stated that it has a high quality standard for certification of its purchases of PET resin, and it takes a long time for sources to qualify, thereby limiting interchangeability.

As can be seen from table II-10, most responding purchasers reported that both domestically produced and imported product "always" met minimum quality specifications, with almost all the remaining responding purchasers answering "usually."

Table II-10
PET resin: Ability to meet minimum quality specifications, by source¹

Source	Always	Usually	Sometimes	Rarely or never
United States	13	3	0	0
Canada	7	1	0	0
China	7	1	0	0
India	7	0	0	0
Oman	7	1	0	1
Other ²	6	0	0	0

¹ Purchasers were asked how often domestically produced or imported PET resin meets minimum quality specifications for their own or their customers' uses.

² "Other" includes Indonesia, Taiwan, Thailand

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

In addition, producers, importers, and purchasers 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-11, most U.S. producers and importers found that differences other than price were "sometimes" or "never" significant.

Table II-11

PET resin: Significance of differences other than price between PET resin produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Canada	0	0	1	3	***	***	***	***	2	1	5	4
U.S. vs. China	0	0	1	3	2	0	7	2	2	1	6	1
U.S. vs. India	0	0	1	3	2	1	6	3	2	1	6	2
U.S. vs. Oman	0	0	1	3	2	1	6	3	2	2	7	2
Subject countries comparisons:												
Canada vs. China	0	0	1	3	2	0	6	2	1	1	3	2
Canada vs. India	0	0	1	3	2	0	6	3	1	1	3	3
Canada vs. Oman	0	0	1	3	2	0	6	3	0	2	3	3
China vs. India	0	0	1	3	2	0	6	2	0	1	4	2
China vs. Oman	0	0	1	3	2	0	6	2	0	1	4	2
India vs. Oman	0	0	1	3	2	0	6	3	0	1	5	2
Nonsubject countries comparisons:												
U.S. vs. nonsubject	0	0	1	3	2	0	7	3	3	1	6	1
Canada vs. nonsubject	0	0	1	3	2	0	6	3	1	1	3	2
China vs. nonsubject	0	0	1	3	2	0	7	2	0	1	4	1
India vs. nonsubject	0	0	1	3	2	0	6	3	0	1	4	2
Oman vs. nonsubject	0	0	1	3	2	0	6	3	0	1	4	2

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

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

In further comments, *** stated that for U.S. vs. Canadian PET resin, the U.S. transportation network limits competition. It continued that for U.S. vs. non-Canadian subject PET resin and nonsubject-country PET resin, the lack of railcar delivery for imports, differences in quality, and purchasers' specifications limit competition. *** stated that domestic product has a perceived advantage in delivery time and supply stability, but a perceived disadvantage due to its inability to access lower-priced raw materials. *** stated that supply consistency and quality are important purchasing factors for its comparisons. (It described factors other than price as frequently significant in all comparisons). *** indicated that cost structure, hedging options (which it stated U.S. producers do not provide), market efficiency, disaster recovery plans, and packaging methods (for which it stated that it preferred ***) were important non-price factors.⁵⁸

⁵⁸ See also statements of information from the International Bottled Water Association and Niagara Bottling, LLC, March 8, 2016.

ELASTICITY ESTIMATES

This section discusses elasticity estimates; parties were encouraged to comment on these estimates as an attachment to their prehearing or posthearing briefs. None did so.

U.S. supply elasticity

The domestic supply elasticity⁵⁹ for PET resin measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of PET resin. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced PET resin. Analysis of these factors earlier indicates that the U.S. industry has somewhat limited ability to increase or decrease shipments to the U.S. market; an estimate in the range of 1 to 3 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for PET resin measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of PET resin. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of the PET resin in the production of any downstream products. Based on the available information, the aggregate demand for PET resin is likely to be somewhat inelastic; a range of -0.2 to -0.5 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.⁶⁰ Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/ discounts/ promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced PET resin and imported PET resin is likely to be in the range of 2 to 5.

⁵⁹ A supply function is not defined in the case of a non-competitive market.

⁶⁰ The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

PART III: U.S. PRODUCERS' PRODUCTION, SHIPMENTS, AND EMPLOYMENT

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and 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 U.S. production of PET resin from January 2012 to September 2015.

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to four firms based on information contained in the petitions and from the record in the preliminary phase: DAK, M&G, Nan Ya, and Indorama.¹ Each of the four firms provided useable data on their production operations. Table III-1 lists U.S. producers of PET resin, their production locations, positions on the petitions, and shares of total production.

¹ In 2005, the domestic industry consisted of seven U.S. producers of PET resin: DAK, Invista, Wellman, M&G, Nan Ya, Voridian, and StarPet. *Polyethylene Terephthalate Resin from India, Indonesia, and Thailand, Investigation Nos. 701-TA-439 and 731-TA-1077, 1078, and 1080 (Final)*, USITC Publication 3769, May 2005, p. 3. Wellman declared bankruptcy in 2008 and DAK purchased the remaining Wellman facility in August 2011, as well as Viridian in January 2011. Indorama has since acquired Invista (2011) and Star PET. *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. III-1, fn. 1.

Table III-1

PET resin: U.S. producers of PET resin, their positions on the petition, production locations, and shares of reported production, January 2012 through September 2015

Firm	Position on petition	Production location(s)	Share of production (percent)
DAK	Support	Charlotte, NC Fayetteville, NC Gaston, SC Moncks Corner, SC Bay St. Louis, MS Leland, NC	***
Indorama	***	Asheboro, NC Decatur, AL Spartanburg, SC	***
M&G	Support	Apple Grove, WV Houston, TX Sharon Center, OH	***
Nan Ya	Support	Lake City, SC	***
Total			100.0

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

As indicated in table III-2, all four U.S. producers are related to a number of foreign producers of PET resin in nonsubject countries, only *** reported being related to a foreign producer in a subject country. In addition, as discussed in greater detail below, ***, ***, and *** directly import PET resin, and *** also purchases PET resin from U.S. importers.

Table III-2

PET resin: U.S. producers' ownership, related and/or affiliated firms, since January 2012

* * * * *

In the Commission's questionnaire, U.S. producers were asked if they had experienced any plant openings, plant closings, relocations, expansions, acquisitions, consolidations, prolonged shutdowns or production curtailments, or revised labor agreements since January 1, 2012. Table III-3 summarizes the responses of the U.S. producers regarding reported changes in operations.

Table III-3

PET resin: U.S. producers' changes in operations since 2012

* * * * *

In 2011, M&G announced that it will construct a PET resin plant in Corpus Christi, Texas, with construction starting in December 2014. This plant is located on a 410-acre property "along the port's north bank of the Inner Harbor, is also situated within a couple of miles from plenty of refineries that produce feedstock needed to manufacture PET and PTA." The total cost of this project is over \$800 million, with 1.1 million tons a year of PET capacity and 1.3 million tons a year of PTA capacity. This new plant will employ 250 permanent jobs and 700 indirect

jobs. “In January 2016 the project has been upgraded in order to increase both nominal and actual expected production by over 100kMT.”² This plant is expected to be the world’s largest PET integrated plant.³ The Corpus Christi plant will allow M&G to produce its own PTA, the main input for PET resin, with a ratio of PTA in PET of about 0.85 to 1.00, or for a one million ton production capacity for PET, 850,000 tons of PTA is needed. To make PTA, PX and MEG are the raw materials needed and there is “a large local supply of MEG and PX” in Corpus Christi.⁴ According to the Declaration of Mark Adlam, North America Commercial Manager for M&G, the Corpus Christi plant should be operational in the third quarter of 2016 and it will “supplant M&G’s imports from Mexico” and is being built to “increase efficiencies and produce high quality PET resin to supply projected increasing demand from our U.S. customers and other export markets. M&G is the sole owner of the Corpus Christi facility. The facility is not a joint venture with DAK” and “there is also no joint manufacturing arrangement between DAK and M&G.” DAK will be “an arm’s-length purchaser of certain PET resin from M&G’s Corpus Christi facility.”⁵ According to respondent Reliance and M&G’s press release in 2013, M&G signed a licensee agreement with Alpek (parent company of DAK) for its IntegRex® PTA technology, which will be used in M&G’s Corpus Christi plant. M&G also announced a “multiyear sourcing agreement covering rights to 400,000 MT of PET (made with 336,000 MT of integrated PTA) per year.” Both the PET and PTA plants in Corpus Christi plant will be fully owned, independently constructed and operated by M&G.⁶

In 2013, DAK closed its Cape Fear PET resin plant. This plant was built in 2007 by DAK, although it was originally owned by DuPont and established in 1961 as a textile fiber facility that only produced PTA and polyester staple fiber. DAK’s Cape Fear plant was “a very modern facility with the melt-to-resin technology that is used by Octal in Oman.”⁷ According to an article in *Manufacturing & Technology News* on July 31, 2013, DAK laid off 340 full-time employee and 264 contract workers when its Cape Fear plant closed.⁸

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 and figure III-1 present U.S. producers’ PET resin production capacity, and capacity utilization.

² M&G webpage, <http://www.mgcorpuschristi.com/en/corpus-christi/the-projects>, retrieved March 8, 2016.

³ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. III-3.

⁴ M&G webpage, <http://www.mgcorpuschristi.com/en/news-detail/4>, retrieved March 8, 2016.

⁵ Petitioners’ posthearing brief, exh. 10.

⁶ M&G webpage, <http://www.gruppomg.com/en/news/1>, retrieved March 9, 2016 and Reliance’s posthearing brief, p. 3, fn. 8.

⁷ Petitioners’ posthearing brief, exh. 1, pp. 17-18.

⁸ Petitioners’ posthearing brief, exh. 10.

Table III-4

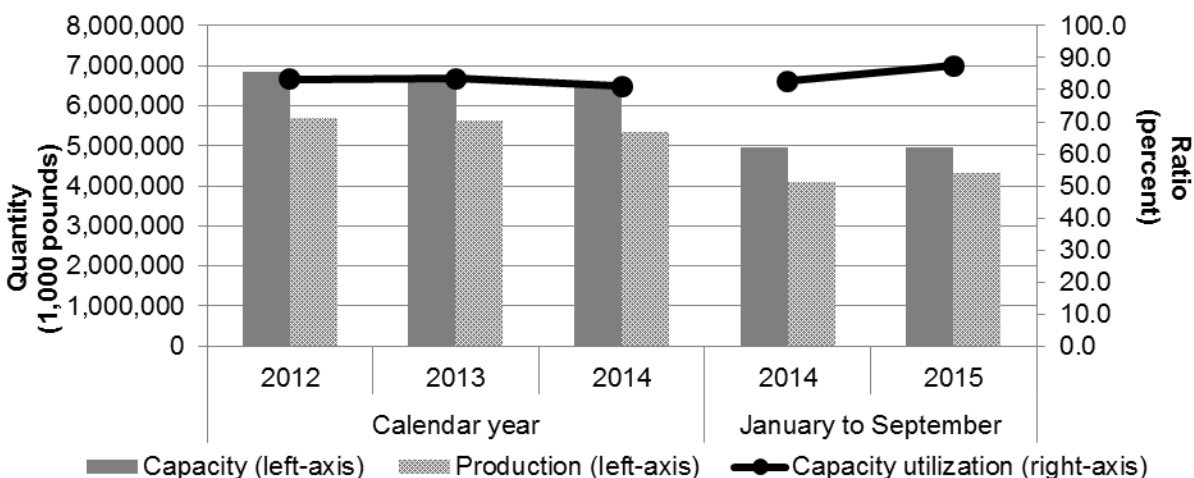
PET resin: U.S. producers' capacity, production, and capacity utilization, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
Quantity (short tons)					
Capacity	6,857,842	6,744,856	6,604,313	4,953,235	4,953,235
Production	5,706,121	5,627,090	5,357,911	4,092,589	4,335,267
Ratio (percent)					
Capacity utilization	83.2	83.4	81.1	82.6	87.5

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

Figure III-1

PET resin: U.S. producers' capacity, production, and capacity utilization, 2012-14, January to September 2014, and January to September 2015



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

U.S. producers' PET resin capacity declined by 1.6 percent in 2013 and 2.1 percent in 2014, but stayed the same between January-September 2014 and January-September 2015. U.S. production of PET resin declined by 1.4 percent in 2013 and 4.8 percent in 2014, but increased by 5.9 percent in January-September 2015 compared to January-September 2014. U.S. capacity utilization increased slightly in 2013 before declining by 2.3 percentage points in 2014, but was higher by 4.9 percentage points in January-September 2015 compared to January-September 2015.

Table III-5 presents U.S. producers' overall production capacity, production of PET resin (hot-filled, cold-filled, and other subject PET resin), production of alternative products, and capacity utilization. U.S. producers' overall capacity declined by 3.4 percent from 2012 to 2014,

but stayed the same in January-September 2015 when compared to January-September 2014. The decline was largely due to the closing of a DAK facility, the closing of an Indorama facility, and a ***.⁹

Table III-5

PET resin: U.S. producers' overall capacity and production on the same equipment as subject production, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
	Quantity (1,000 pounds)				
Overall capacity	7,461,760	7,348,774	7,208,231	5,406,174	5,406,174
Production:					
Hot-Fill PET resin	994,888	1,036,455	933,945	729,881	798,062
Cold-Fill PET resin	3,111,600	3,021,389	3,135,702	2,378,880	2,586,641
Other subject PET resin	1,599,633	1,569,246	1,288,264	983,828	950,564
Subject PET resin	5,706,121	5,627,090	5,357,911	4,092,589	4,335,267
Other products	***	***	***	***	***
Total production on same machinery	***	***	***	***	***
	Ratios and shares (percent)				
Overall capacity utilization	***	***	***	***	***
Share of production:					
Hot-Fill PET resin	***	***	***	***	***
Cold-Fill PET resin	***	***	***	***	***
Other subject PET resin	***	***	***	***	***
Subject PET resin	***	***	***	***	***
Other products	***	***	***	***	***
Total production on same machinery	***	***	***	***	***

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

Similar to capacity, total production declined each year during 2012-14 (** percent in 2013 and ** percent in 2014), but was ** percent higher in January-September 2015 than in January-September 2014. During 2012-14, production of subject PET resin accounted for over ** percent of total production for the four U.S. producers (** percent, ** percent, ** percent, and ** percent for DAK, Indorama, M&G, and Nan Ya, respectively). From 2012 to September 2015, the majority of PET resin produced was cold-filled PET resin. Three U.S. producers, **, also make other subject PET resin in addition to PET resin used in hot and cold applications. These other subject PET resin products include custom containers, bulk continuous filament ("BCF"), sheet and strapping.¹⁰ Two other U.S. producers, **¹¹ and **¹²,

⁹ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. III-3.

¹⁰ **.

¹¹ **.

make nonsubject PET resin using the same equipment and machinery in the production of subject PET resin. These nonsubject products include ***.

There have been several disruptions to the supply of raw materials used in the production of PET resin. In August, 2014, a PTA production unit in South Carolina was shut down due to a fire which created a shortage of PTA. Further, a producer of IPA in Flint Hills, Michigan lost a cooling tower due to cold temperatures which resulted in a three to four month shutdown.¹³

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

Table III-6 presents U.S. producers' U.S. commercial shipments, export shipments, and total shipments. *** U.S. producers reported internal consumption or transfers of PET resin to related firms in the United States. U.S. commercial shipments accounted for the vast majority of U.S. producers' shipments, ranging from 91.5 percent to 95.3 percent of total shipments for full years 2012-2014 and January-September 2015 based on quantity. Export shipments accounted for less than 10 percent of total U.S. producers' shipments from 2012 to January-September 2015. Leading export destinations included ***. U.S. producers' export shipments declined by 49.1 percent from 2012 to 2014, but increased by 12.0 percent in January-September 2015 than in January-September 2014. *** U.S. producers exported PET resin from 2012 to 2014 and in January-September 2015, with the exception of a slight increase in 2014 for one producer ***, U.S. producers' exports declined noticeably from 2012 to 2014. The trend for U.S. producers' exports in January-September 2015 when compared to January-September 2014 were mixed, with two producers *** increasing their exports and two producers *** decreasing their exports of PET resin.

The quantity of U.S. producers' commercial U.S. shipments declined each year between 2012 and 2014 (1.2 percent in 2013 and 1.8 percent in 2014), but increased by 3.6 percent in January-September 2015 than in January-September 2014. A majority of the decline in 2012-2014 was due to *** percent.

Unit values of U.S. producers' commercial shipments were \$0.78 in both 2012 and 2013, declined to \$0.71 in 2014, and declined further to \$0.60 in January-September 2015. Average unit values decreased consistently for *** every year from 2012 to 2014, but increased for *** in 2013 before falling in 2014. Average unit values decreased for all U.S. producers in 2014 and decreased to their lowest levels in January-September 2015, ranging from \$0.55 to \$0.62.

(...continued)

¹² ***.

¹³ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. III-4.

Table III-6

PET resin: U.S. producers' commercial U.S. shipments, export shipments, and total shipments, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
Quantity (1,000 pounds)					
U.S. shipments	5,278,504	5,217,493	5,126,103	3,984,793	4,128,863
Export shipments	492,050	345,436	250,241	202,813	227,142
Total shipments	5,770,554	5,562,929	5,376,344	4,187,606	4,356,005
Value (1,000 dollars)					
U.S. shipments	4,139,466	4,078,200	3,616,987	2,868,939	2,465,704
Export shipments	358,590	250,490	168,672	140,309	127,300
Total shipments	4,498,056	4,328,690	3,785,659	3,009,248	2,593,004
Unit value (dollars per pound)					
U.S. shipments	0.78	0.78	0.71	0.72	0.60
Export shipments	0.73	0.73	0.67	0.69	0.56
Total shipments	0.78	0.78	0.70	0.72	0.60
Share of quantity (percent)					
U.S. shipments	91.5	93.8	95.3	95.2	94.8
Export shipments	8.5	6.2	4.7	4.8	5.2
Total shipments	100.0	100.0	100.0	100.0	100.0
Share of value (percent)					
U.S. shipments	92.0	94.2	95.5	95.3	95.1
Export shipments	8.0	5.8	4.5	4.7	4.9
Total shipments	100.0	100.0	100.0	100.0	100.0

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

Table III-7 presents data on the mode of transportation used by U.S. producers to deliver their commercial shipments to U.S. customers. The majority (approximately *** percent) of PET resin was shipped using only rail, approximately *** percent shipped using only truck, and the remaining using both rail and truck methods.

Table III-7

PET resin: U.S. producers' commercial U.S. shipments by mode of transportation, 2012-14, January to September 2014, and January to September 2015

* * * * *

U.S. PRODUCERS' INVENTORIES

Table III-8 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments during 2012-14. U.S. producers' inventories increased by *** percent between 2012 and 2014 and increased by *** percent between January-September 2014 and January-September 2015. The majority of U.S. inventories were held by ***, which accounted for *** percent and *** percent, respectively, of inventories held at year end 2014. The ratios of inventories to production and U.S. shipments were *** percent, respectively, in 2014, compared to 2012 and were also higher in January-September 2015 when compared to January-September 2014.

Table III-8
PET resin: U.S. producers' inventories, 2012-14, January to September 2014, and January to September 2015

* * * * *

U.S. PRODUCERS' IMPORTS AND PURCHASES

As shown in table III-9, three U.S. producers imported PET resin. In 2013, ***.¹⁴ ***. ***. As a ratio to U.S. production, ***.¹⁵ *** purchased a very small amount of PET resin from another U.S. producer *** in 2014. *** reported that this purchase was to supplement its own supplies during the temporary supply tightness of PTA.

Table III-9
PET resin: U.S. producers' direct imports, 2012-14, January to September 2014, and January to September 2015

* * * * *

¹⁴ ***.

¹⁵ ***.

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-10 shows U.S. producers' employment-related data from 2012 to September 2015. The number of PRWs declined by 6.7 percent from 2012 to 2014 and changed by less than one percent in January-September 2015 compared to January-September 2014. The majority of the decline was accounted for by ***. *** reported a smaller decline in PRWs between 2012 and 2014. *** experienced a small increase in PRWs over the same period. Productivity remained relatively stable from 2012 to 2014 and January-September 2015, while unit labor costs increased steadily.

Table III-10

PET resin: U.S. producers' employment related data, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January-September	
	2012	2013	2014	2014	2015
Production-Related Workers (PRWs) (number)	1,060	1,057	989	989	982
Total hours worked (1,000 hours)	1,683	1,681	1,581	1,236	1,219
Hours worked per PRW (hours)	1,588	1,590	1,599	1,250	1,241
Wages paid (\$1,000)	41,036	41,064	40,652	33,384	33,026
Hourly wages (dollars per hour)	\$24.38	\$24.43	\$25.71	\$27.01	\$27.09
Productivity (pounds per hour)	3,390.4	3,347.5	3,388.9	3,311.2	3,556.4
Unit labor costs (dollars per 1,000 pounds)	\$7.19	\$7.30	\$7.59	\$8.16	\$7.62

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

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 60 firms believed to be possible importers of subject PET resin, as well as to all U.S. producers of PET resin.¹ Usable questionnaire responses were received from 22 companies,² representing over 80 percent of U.S. imports from Canada, China, India, and Oman between 2012 and September 2015 under HTS statistical reporting number 3907.60.0030. Six firms³ indicated that they had not imported PET resin into the United States since January 1, 2012. Table IV-1 lists all responding U.S. importers of PET resin from Canada, China, India, Oman, and other sources, their locations, and their shares of U.S. imports, from January 2012 to September 2015.

¹ The Commission issued questionnaires to those firms identified in the petition, review of data provided by *** in 2014, and the preliminary phase of these investigations.

² Klöckner Pentaplast of America Inc. (“Klockner”) did not submit a U.S. importer questionnaire in these final investigations, but did submit a useable questionnaire in the preliminary phase. Klockner’s data is not included in Part IV of this report, but its pricing data is included in Part V of this report.

³ These firms are: ***.

Table IV-1

PET resin: U.S. importers, their headquarters, and share of total imports by source, January 2012 through September 2015

Firm	Headquarters	Share of imports by source (percent)						
		Canada	China	India	Oman	Subject sources	Nonsubject sources	All sources
Amcor	Manchester, MI	***	***	***	***	***	***	***
Ampet	Florida, FL	***	***	***	***	***	***	***
CG Roxane	Olancho, CA	***	***	***	***	***	***	***
Custom Polymers	Charlotte, NC	***	***	***	***	***	***	***
Daewoo	Anaheim, CA	***	***	***	***	***	***	***
DAK	Charlottenc, NC	***	***	***	***	***	***	***
DL Trading, Ltd.	Katy, TX	***	***	***	***	***	***	***
Duris	Oxnard, CA	***	***	***	***	***	***	***
Excell	Raleigh, NC	***	***	***	***	***	***	***
I. Stern	Clark, NJ	***	***	***	***	***	***	***
Indorama	Riverwoods, IL	***	***	***	***	***	***	***
M&G	Houston, TX	***	***	***	***	***	***	***
Nexeo	The Woodlands, TX	***	***	***	***	***	***	***
Octal	Salalah, Oman	***	***	***	***	***	***	***
Pacific Rim Traders	San Francisco, CA	***	***	***	***	***	***	***
PolyQuest	Wilmington, NC	***	***	***	***	***	***	***
Premium Waters	Minneapolis, MN	***	***	***	***	***	***	***
Ravago	Orlando, FL	***	***	***	***	***	***	***
Selenis	Montreal East, QC	***	***	***	***	***	***	***
Vinmar	Houston, TX	***	***	***	***	***	***	***
Wiliam Barnet & Son	Spartanburg, SC	***	***	***	***	***	***	***
Total		***	***	***	***	***	***	***

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

U.S. IMPORTS

Table IV-2 presents data for U.S. imports of PET resin from Canada, China, India, Oman, and all other sources. U.S. import data are based on questionnaire responses for PET resin from Oman and official commerce statistics, HTS subheading 3907.60.0030, for PET resin from all other sources.⁴ In terms of quantity, imports from Canada increased by 14.7 percent from 2012 to 2014 and increased by 2.1 percent in January-September 2015 when compared to January-September 2014; imports from China increased by 55.6 percent from 2012 to 2014 and decreased by 62.3 percent in January-September 2015 compared to January-September 2014; imports from India increased 70.2 percent from 2012 to 2014 and decreased by 41.6 percent in January-September 2015 when compared to January-September 2014; and imports from Oman increased by *** percent from 2012 to 2014, but decreased by *** percent in January-September 2015 compared with January-September 2014.

U.S. imports from Oman experienced *** from 2012 to September 2015. This *** was mostly accounted for by ***, ***.⁵ Four other U.S. importers, ***, also imported PET resin from Oman from 2012 to September 2015.

Average unit values of U.S. imports of PET resin from China and India declined steadily from 2012-14. Average unit value of PET resin from China increased in January-September 2015 compared to January-September 2014 while PET resin from India continued to decline during the interim period. The average unit values of PET resin from Canada increased in 2013, then declined in 2014, and continued to decline in January-September 2015 compared to January-September 2014. Average unit values of PET resin from Oman declined markedly from 2012 to 2013, but increased in 2014 and then declined again in January-September 2015 compared to January-September 2014. PET resin from China mostly had the lowest average unit values from 2012 to 2014, ***. In January-September 2015, average unit values were low for all four subject countries, with India having the lowest average unit value.

⁴ In the preliminary phase, the Omani respondents reported they believe the official Commerce import statistics understate U.S. imports of PET resin from Oman because additional subject product was shipped under HTS subheading 3907.60.0070, and that questionnaire responses should be used instead. In these final investigations, ***. Email from ***.

⁵ Additionally, ***. Email from ***.

Table IV-2
PET resin: U.S. imports, by source, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
	Quantity (1,000 pounds)				
U.S. imports from.--					
Canada	268,572	319,250	307,992	227,736	232,476
China	159,799	145,486	248,678	197,616	74,563
India	50,414	80,914	85,803	76,914	44,885
Oman	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***
Korea	6,813	11,077	3,334	2,903	6,058
Mexico	307,005	212,080	384,706	284,329	312,693
Taiwan	74,594	78,949	65,992	54,664	81,072
All other sources	144,340	120,425	112,443	77,777	142,263
Subtotal, nonsubject sources	532,753	422,531	566,476	419,672	542,086
Total U.S. imports	***	***	***	***	***
Value (1,000 dollars)					
U.S. imports from.--					
Canada	212,140	255,741	240,432	176,924	145,249
China	96,185	80,839	106,660	81,452	40,006
India	38,920	60,135	56,927	51,562	22,068
Oman	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***
Korea	5,041	8,044	2,183	1,898	3,141
Mexico	232,554	148,768	278,741	208,249	180,995
Taiwan	56,646	63,747	49,006	40,729	48,415
All other sources	107,243	88,779	78,771	56,365	76,707
Subtotal, nonsubject sources	401,483	309,338	408,701	307,241	309,257
Total U.S. imports	***	***	***	***	***
Unit value (dollars per pound)					
U.S. imports from.--					
Canada	0.79	0.80	0.78	0.78	0.62
China	0.60	0.56	0.43	0.41	0.54
India	0.77	0.74	0.66	0.67	0.49
Oman	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***
Korea	0.74	0.73	0.65	0.65	0.52
Mexico	0.76	0.70	0.72	0.73	0.58
Taiwan	0.76	0.81	0.74	0.75	0.60
All other sources	0.74	0.74	0.70	0.72	0.54
Subtotal, nonsubject sources	0.75	0.73	0.72	0.73	0.57
Total U.S. imports	***	***	***	***	***

* * * * *

Source: Official import statistics under HTS statistical reporting number 3907.60.0030, except for the data for Oman which is compiled from data submitted in response to Commission questionnaires.

Table IV-3 presents data for U.S. imports of PET resin from the top nonsubject sources. Mexico is by far the largest nonsubject source of PET resin imports from 2012 to interim 2015.

Table IV-3

PET resin: U.S. imports from top nonsubject sources, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
	Quantity (1,000 pounds)				
Mexico	307,005	212,080	384,706	284,329	312,693
Taiwan	74,594	78,949	65,992	54,664	81,072
Indonesia	41,340	39,684	49,310	31,268	33,257
Pakistan	27,230	49,123	29,326	25,194	27,384
Peru	5,694	4,425	15,691	9,984	18,928
Egypt	84	251	8,441	3,818	22,601
France	12,018	1,453	5,786	4,007	4,905
Korea	6,813	11,077	3,334	2,903	6,058
Russia	(¹)	4,886	1,898	1,898	2
Nigeria	0	0	434	434	0
All other sources	57,975	20,603	1,556	1,173	35,186
Total	532,753	422,531	566,476	419,672	542,086
Value (1,000 dollars)					
Mexico	232,554	148,768	278,741	208,249	180,995
Taiwan	56,646	63,747	49,006	40,729	48,415
Indonesia	34,200	31,627	40,060	27,173	19,815
Pakistan	19,640	35,310	19,211	16,656	14,214
Peru	3,173	2,247	7,767	5,001	8,216
Egypt	49	164	5,565	2,636	12,134
France	7,478	873	3,405	2,342	2,624
Korea	5,041	8,044	2,183	1,898	3,141
Russia	(¹)	2,877	1,019	1,019	3
Nigeria	0	0	200	200	0
All other sources	42,703	15,682	1,545	1,338	19,700
Total	401,483	309,338	408,701	307,241	309,257
Unit value (dollars per pound)					
Mexico	0.76	0.70	0.72	0.73	0.58
Taiwan	0.76	0.81	0.74	0.75	0.60
Indonesia	0.83	0.80	0.81	0.87	0.60
Pakistan	0.72	0.72	0.66	0.66	0.52
Peru	0.56	0.51	0.49	0.50	0.43
Egypt	0.58	0.65	0.66	0.69	0.54
France	0.62	0.60	0.59	0.58	0.54
Korea	0.74	0.73	0.65	0.65	0.52
Russia	37.74	0.59	0.54	0.54	1.15
Nigeria	(²)	(²)	0.46	0.46	(²)
All other sources	0.74	0.76	0.99	1.14	0.56
Total	0.75	0.73	0.72	0.73	0.57

¹ Less than 500 pounds/\$500.

² Not applicable.

Source: Official import statistics under HTS statistical reporting number 3907.60.0030.

CRITICAL CIRCUMSTANCES

On March 14, 2016, Commerce issued final determinations that critical circumstances exist with respect to imports of PET resin from India that are subsidized and sold at LTFV.

In its final countervailing duty determination of PET resin from India, Commerce found that critical circumstances do not exist for imports from Dhunseri, but exist for imports from JBF Industries Limited (“JBF”) and all-other companies in India.⁶ JBF did not cooperate at any stage in the Commerce proceeding. Therefore, Commerce is basing its critical circumstance determination on adverse facts available, pursuant to section 776(a) and (b) of the Act, and 19 CFR 351.308(c).⁷

In its final antidumping duty determination of PET resin from India, Commerce found that critical circumstances exist for imports from Dhunseri, Ester Industries, Ltd. (“Ester”), JBF, Reliance Industries, Ltd. (“Reliance”), and all-other companies in India.⁸ Commerce stated that: “(1) There is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise in accordance with section 733(e)(1)(A)(i) of the Act; and (2) imports of the subject merchandise have been massive over a relatively short period in accordance with section 733(e)(1)(B) of the Act.”⁹

In these investigations, if both Commerce and the Commission make affirmative final critical circumstances determinations, certain subject imports may be subject to countervailing and antidumping duties retroactive by 90 days from August 14, 2015, for the countervailing duty order and 90 days from October 15, 2015, for the antidumping duty order, the effective dates of Commerce’s preliminary affirmative subsidy and LTFV determinations on imports of PET resin from India. If the Commission determines that an industry in the United States is materially injured by reason of subsidized and LTFV imports of PET resin from India, it must further determine “whether the imports subject to the affirmative {Commerce critical circumstances} determinations . . . are likely to undermine seriously the remedial effect of the countervailing and antidumping duty orders to be issued.”¹⁰ The statute further provides that in making this determination, the Commission shall consider:

⁶ *Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India: Final Affirmative Determination and Final Affirmative Critical Circumstances Determination, in Part*, 81 FR 13334, March 14, 2016.

⁷ *Issues and Decision Memorandum for the Final Affirmative Determination in the Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India*, March 4, 2016.

⁸ *Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances*, 81 FR 13327, March 14, 2016. *Issues and Decision Memorandum for the Final Determination of the Less-Than-Fair Value Investigation of Certain Polyethylene Terephthalate Resin from India*, March 4, 2016.

⁹ *Decision Memorandum for the Preliminary Determination in the Antidumping Duty Investigation of Certain Polyethylene Terephthalate Resin from India*, October 6, 2015 and *Issues and Decision Memorandum for the Final Determination of the Less-Than-Fair Value Investigation of Certain Polyethylene Terephthalate Resin from India*, March 4, 2016.

¹⁰ Section 735(b)(4)(A)(i) of the Act (19 U.S.C. § 1673d(b)(4)(A)(i)).

- (I) the timing and the volume of the imports,
- (II) a rapid increase in inventories of the imports, and
- (III) any other circumstances indicating that the remedial effect of the antidumping order will be seriously undermined.¹¹

Table IV-4 and figure IV-1 present monthly import data of PET resin by U.S. importers from India, for the five and six month period before and after the filing of the petition. Total U.S. imports from India were 3.3 percent higher in the six month period following the filing of the petition (March 2015 to August 2015) than in the six month period preceding the filing of the petition (September 2014 to February 2015). U.S. imports from India without imports from Dhunseri were *** percent higher in the six month period following the filing of the petition (March 2015 to August 2015) than in the six month period preceding the filing of the petition (September 2014 to February 2015).

Table IV-4

PET resin: PET resin: Critical circumstances, September 2014 through August 2015

Month	Quantity (1,000 pounds)	
	Total India	Total India less Dhunseri ¹
2014.--		
September	12,686	***
October	4,108	***
November	582	***
December	4,199	***
2015.--		
January	5,692	***
February	5,323	***
March	4,948	***
April	11,991	***
May	9,062	***
June	7,336	***
July	49	***
August	265	***
Subtotal, 6 months prior	32,590	***
Subtotal, 6 months post	33,650	***
Subtotal, 5 months prior	19,904	***
Subtotal, 5 months post	33,385	***

¹ Commerce found that critical circumstance did not exist for subsidized imports from Dhunseri.

Note.--The petition was filed on March 10, 2015.

Source: Official import statistics, U.S. Department of Commerce, under HTS statistical reporting number 3907.60.0030, accessed December 9, 2015.

¹¹ Section 735(b)(4)(A)(ii) of the Act (19 U.S.C. § 1673d(b)(4)(A)(ii)).

Figure IV-1

PET resin: Critical circumstances, September 2014 through August 2015

* * * * *

NEGLECTIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.¹² 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.¹³ During March 2014 to February 2015, imports from each subject country accounted for greater than 3 percent of total imports of PET resin. Specifically, imports from Canada accounted for 23.6 percent, those from China accounted for 18.1 percent, those from India accounted for 4.9 percent, and those from Oman accounted for 7.5 percent of total imports of PET resin.¹⁴

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 concerning fungibility and channels of distribution are discussed in Part II of this report.

In the preliminary phase of these investigations, the Commission determined that there is “a reasonable overlap of competition between and among subject imports and the domestic

¹² 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)).

¹³ Section 771 (24) of the Act (19 U.S.C § 1677(24)).

¹⁴ Based on official import statistics under HTS statistical reporting number 3907.60.0030.

like product” and analyzed subject imports from Canada, China, India, and Oman on a cumulated basis.¹⁵

Petitioners argue that imports from all subject sources should be cumulated because the record indicates that there is a reasonable overlap of competition between the subject imports from each country and domestically produced PET resin, meeting the statutory requirements for the Commission to “cumulate the subject imports from all countries in assessing material injury.”¹⁶ Respondent Octal argues that the Commission should not cumulate in these investigations. First, Octal argues that the traditional four-factor test for the Commission’s present injury analysis have not been met because there is insufficient evidence of an overlap in competition due to Octal’s “distinct manufacturing process” and that “many large end user customers require shipments by rail,” thereby limiting fungibility for subject imports to compete with domestic producers.¹⁷ Second, Octal argues that the Commission should apply adverse inferences against Canada and China because neither subject country cooperated in these final phase investigation, therefore the Commission should “decumulate and consider the situation of each country on its own.” Third, Octal received *de minimus* subsidy finding by Commerce, thereby terminating the countervailing duty investigation against Oman and “very low dumping margin.” Other exports were found by Commerce to have “much higher margins” than Oman, resulting in diverse subsidy rates and dumping margins among different subject countries.¹⁸ Respondent Reliance argues that subject imports should not be cumulated because there is not a significant overlap in competition between domestic and imported PET resin for certain end uses, such as for hot- or cold-filled bottling applications.¹⁹

Presence in the market

Table IV-5 presents data on the monthly entries of U.S. imports of PET resin, by source, during January 2012 to September 2015. U.S. imports from each source were present in each of the 45 months.

¹⁵ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. 16.

¹⁶ Petitioners’ prehearing brief, p. 18.

¹⁷ Respondent Octal’s prehearing brief, pp. 11-12.

¹⁸ Respondent Octal’s posthearing brief, pp. 5-7.

¹⁹ Respondent Reliance’s posthearing brief, pp. 8-9.

Table IV-5
PET resin: U.S. imports, monthly entries into the United States, by sources, January 2012-September 2015

Year	Canada	China	India	Oman	Subject sources	Nonsubject sources	All sources
	Number of months						
2012	12	12	12	12	12	12	12
2013	12	12	12	12	12	12	12
2014	12	12	12	12	12	12	12
January - September 2015	9	9	9	9	9	9	9

Source: Official import statistics under HTS statistical reporting number 3907.60.0030.

Geographical markets

As previously noted, PET resin is produced in the United States and sold nationwide. Table IV-6 presents data on the top Customs districts for U.S. PET resin imports.

Respondent Octal argues that subject imports focus on distinct geographical market segments, given the different modes of transportation between subject imports and domestic PET resin and the concentration of subject imports in specific geographic regions, with the majority of imports from China entering from three ports on the west coast and imports from Oman entering from three ports on the east coast.^{20 21}

Table IV-7 presents data on the mode of transportation used to deliver imported PET resin from subject and nonsubject countries. Trucks were by far the primary mode of transportation used to deliver imported PET resin from China, India, and Oman. However, rail was the primary mode of transportation used to deliver most of the PET resin imported from Canada.

Like Canada, imports of PET resin from nonsubject country Mexico were delivered using rail as the primary mode of transportation. Other nonsubject countries primarily used trucks as their primary method of delivering PET resin to their customers.

²⁰ Respondent Octal's prehearing brief, pp. 9-10.

²¹ In the preliminary phase of these investigations, the Chinese respondents indicated that imports have a much larger presence in the western United States because most U.S. producers are generally located on the east coast. This distance offsets the cost of foreign transport and allows importers to compete with U.S. producers. The Canadian respondent, in contrast, testified that on a consistent basis, it sells PET resin only as far west as Chicago and as far South as Georgia. *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman, Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, pp. IV-8 to IV-9.

Table IV-6

PET resin: U.S. imports, top U.S. entry districts, by sources, January 2012-September 2015

District	Quantity (1,000 pounds)	Share of quantity (percent)
Canada		
Detroit, MI	652,194	57.8
Ogdensburg, NY	243,271	21.6
Pembina, ND	153,266	13.6
Portland, ME	39,750	3.5
Buffalo, NY	15,118	1.3
All other districts	24,690	2.2
Total	1,128,289	100.0
China		
Los Angeles, CA	351,720	56.0
Seattle, WA	122,844	19.5
San Francisco, CA	69,273	11.0
Houston-Galveston, TX	24,992	4.0
Miami, FL	17,487	2.8
All other districts	42,210	6.7
Total	628,526	100.0
India		
Los Angeles, CA	92,072	35.1
Savannah, GA	33,594	12.8
New York, NY	33,523	12.8
San Francisco, CA	28,310	10.8
Houston-Galveston, TX	28,290	10.8
All other districts	46,227	17.6
Total	262,016	100.0
Oman		
New York, NY	84,499	32.6
Charleston, SC	69,401	26.8
Savannah, GA	36,867	14.2
Los Angeles, CA	23,511	9.1
Houston-Galveston, TX	12,027	4.6
All other districts	33,100	12.8
Total	259,403	100.0
Nonsubject sources		
Laredo, TX	1,063,781	51.5
Los Angeles, CA	242,164	11.7
Charleston, SC	172,372	8.4
Seattle, WA	137,325	6.7
San Francisco, CA	108,635	5.3
All other districts	339,569	16.5
Total	2,063,846	100.0

Source: Official import statistics, U.S. Department of Commerce, under HTS statistical reporting number 3907.60.0030, accessed December 9, 2015.

Table IV-7

PET resin: U.S. importers' commercial U.S. shipments by mode of transportation, 2012-14, January to September 2014, and January to September 2015

* * * * *

Table IV-8 presents data on shares of imports that were shipped commercially or internally consumed/transferred to related firms in 2014. With the exception of imports from India, the vast majority (***) of imports from both subject and nonsubject sources were shipped commercially in the United States. Imports from India, however, were mostly (***) percent internally consumed and/or transferred to related firms.

Table IV-8
PET resin: Shares of U.S. shipments by source, 2014

* * * * *

APPARENT U.S. CONSUMPTION

Table IV-9 and figure IV-2 present data on apparent U.S. consumption for PET resin. Apparent U.S. consumption, by quantity, increased each year from 2012 to 2014 and also in January-September 2015 compared to January-September 2014, rising by *** percent in 2013, by *** percent in 2014, and lower by *** percent January-September 2015 compared to January-September 2014. In contrast, apparent U.S. consumption, by value, declined in each year from 2012 to 2014 and also in January-September 2015 compared to January-September 2014, falling by *** percent in 2013, by *** percent in 2014, and by *** percent in January-September 2015 compared to January-September 2014.

Table IV-9

PET resin: Apparent U.S. consumption, 2012-14, January to September 2014, and January to September 2015

Item	Calendar year			January to September	
	2012	2013	2014	2014	2015
	Quantity (1,000 pounds)				
U.S. producers' U.S. shipments	5,278,504	5,217,493	5,126,103	3,984,793	4,128,863
U.S. imports from.--					
Canada	268,572	319,250	307,992	227,736	232,476
China	159,799	145,486	248,678	197,616	74,563
India	50,414	80,914	85,803	76,914	44,885
Oman	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***
Subtotal, subject to AD margins ¹	***	***	***	***	***
Subtotal, subject to CVD margins	***	***	***	***	***
Korea	6,813	11,077	3,334	2,903	6,058
Mexico	307,005	212,080	384,706	284,329	312,693
Taiwan	74,594	78,949	65,992	54,664	81,072
All other sources	144,340	120,425	112,443	77,777	142,263
Subtotal, nonsubject sources	532,753	422,531	566,476	419,672	542,086
Total U.S. imports	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	4,139,466	4,078,200	3,616,987	2,868,939	2,465,704
U.S. imports from.--					
Canada	212,140	255,741	240,432	176,924	145,249
China	96,185	80,839	106,660	81,452	40,006
India	38,920	60,135	56,927	51,562	22,068
Oman	***	***	***	***	***
Subtotal, subject sources	***	***	***	***	***
Subtotal, subject to AD margins	***	***	***	***	***
Subtotal, subject to CVD margins ¹	***	***	***	***	***
Korea	5,041	8,044	2,183	1,898	3,141
Mexico	232,554	148,768	278,741	208,249	180,995
Taiwan	56,646	63,747	49,006	40,729	48,415
All other sources	107,243	88,779	78,771	56,365	76,707
Subtotal, nonsubject sources	401,483	309,338	408,701	307,241	309,257
Total U.S. imports	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***

¹ Imports from Oman are found to have *de minimus* subsidy rates by Commerce.

Source: Official import statistics under HTS statistical reporting number 3907.60.0030, except Oman which is compiled from data submitted in response to Commission questionnaires

Figure IV-2

PET resin: Apparent U.S. consumption, 2012-14, January to September 2014, and January to September 2015

* * * * *

U.S. MARKET SHARES

U.S. market shares for PET resin are presented in table IV-10. U.S. producers' share of the domestic market, by quantity, decreased by *** percentage points from 2012 to 2014, but increased by *** in January-September 2015 compared to January-September 2014. In contrast, subject imports' share of the domestic market increased by *** percentage points from 2012 to 2014, but decreased by *** percentage points in January-September 2015 compared to January-September 2014. Each of the subject countries' share of the domestic market increased from 2012 to 2014; with Oman having the largest increase in market share). Nonsubject sources' share, by quantity, increased *** percentage points between 2012 and 2014 and increased by *** percentage points in January-September 2015 compared to January-September 2014.

Table IV-10

PET resin: Market shares, 2012-14, January to September 2014, and January to September 2015

* * * * *

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw Materials

In these investigations, raw materials as a share of cost of goods sold varied from *** to *** percent between 2012 and 2014, although they fell *** in January-September 2015.

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 Indian producer Reliance indicated that in general, production of 1 kilogram of PET resin requires 850 grams of PTA and 350 grams of MEG.² Prices of both MEG and PTA have fallen in recent years, as shown in figure V-1.³ MEG prices fell by *** percent over January 2012-September 2015, while PTA prices fell by *** percent over the same period. The bulk of this decline came between August 2014 and early 2015, when global oil prices fell.⁴ From January 2012 to August 2014, MEG prices had fallen only *** percent while PTA prices had fallen *** percent. Since early 2015, the prices of MEG and PTA have fluctuated.

Figure V-1

PET resin: Indexed prices of monoethylene glycol (MEG), purified terephthalic acid (PTA), and “major raws,” by month, January 2012-September 2015

* * * * *

Petitioners described U.S. PTA prices as higher than global PTA prices, but added that with transportation costs, it is less expensive for U.S. producers to purchase PTA domestically than to import it.⁵ Importer Pacific Rim described U.S. PET resin producers as experiencing supply difficulties due to a fire at BP’s South Carolina facility, the largest U.S. PTA supplier, in August 2014.⁶ *** stated that BP’s status as the largest merchant supplier of PTA in the U.S. market means that U.S. PET resin producers are vulnerable to PTA price increases by BP. It added that foreign PET resin suppliers were more likely to secure their raw materials through

¹ U.S. International Trade Commission, *Polyethylene Terephthalate (PET) Resin From India, Indonesia, and Thailand*, Investigations Nos. 701-TA-439 and 731-TA-1077, 1078 and 1080 (Final), Publication 3769, May 2005, p. V-1. See also conference transcript, pp. 93 (Behm) and 114 (Porter).

² Hearing transcript, p. 201 (Ravjanshi).

³ Figure V-1 also shows a staff calculation of “major raws,” a weighted average of MEG and PTA prices also available in published data. The weights are usually ***. See email from Dan Porter, counsel for Octal, February 26, 2016.

⁴ See *** for data on global oil prices.

⁵ Conference transcript, pp. 61-62 (McNaull). Counsel for the Omani producer also described U.S. PTA prices as higher than global PTA prices. Conference transcript, p. 115 (Porter).

⁶ Conference transcript, p. 93 (Behm). See also *Part II*. Four purchasers also noted this fire as a supply constraint in the U.S. market.

backward integration.⁷ Indian producer Reliance described U.S. PTA prices as usually 10 percent higher than Asian PTA prices.⁸

In general, purchasers reported that PET resin prices closely tracked the price of the two main raw materials, which in turn tracked oil prices. Three purchasers described such tracking as a result of PET resin pricing formulas based on raw material prices. However, some purchasers noted reasons for differences. ***. Similarly, *** stated that feedstock prices were lower in Asia, lowering prices from Asian PET resin producers.

U.S. producers and importers described the prices of the raw materials for PET resin as declining or fluctuating since January 1, 2012. Three producers and *** importers responded that raw material prices had decreased, while one producer and *** importers stated that they had fluctuated. *** stated that PET resin prices had fallen to unprofitable levels due to subject imports rather than falling raw material prices. *** stated that its pricing formulas took into account raw material price declines.⁹ *** described PET resin prices as falling more than raw material prices. Five importers described falling raw material prices as driving PET resin prices down, sometimes because of contract formulas that tie PET resin prices to raw material prices. However, importer *** stated that its PET resin margins had declined due to PET resin supply exceeding demand, and importer *** also stated that PET resin pricing had been driven mostly by the supply and demand of PET resin.

Transportation costs to the U.S. market

Transportation costs to the U.S. market were 0.8 percent¹⁰ for PET resin from Canada, 6.7 percent for PET resin from China, 10.9 percent for PET resin from India, and 8.5 percent for PET resin from Oman.

U.S. inland transportation costs

Four U.S. producers and *** importers reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs ranged from 3 to 6 percent, while *** importers reported costs of 2 to 11 percent and *** importers reported costs of 30 to 39 percent.¹¹ In the preliminary phase, ***.¹²

Purchasers were also asked to report the transportation costs for PET resin purchased from U.S. producers and importers. Purchasers that provided usable answers generally

⁷ According to ***. See also prehearing brief of Reliance Industries, p. 12.

⁸ Hearing transcript, p. 204 (Ravjanshi).

⁹ ***.

¹⁰ Transportation costs were determined by comparing the c.i.f. value of imports to the Customs value of imports for HTS code 3907.60.00.30, using values from October 2014 through September 2015.

¹¹ *** importers reported shipping from their point of importation, and *** reported shipping from storage.

¹² Staff telephone interview with ***.

estimated both costs to be about 3 to 5 percent. The only purchaser that provided different answers for U.S. producers and importers was ***, which estimated *** percent for U.S. product and *** percent for imported product.¹³ *** stated that transportation costs had increased by about 0.5 percent in 2014 due to the lower price of PET resin.

PRICING PRACTICES

Pricing methods

Petitioners described PET resin pricing as being based on raw material costs per pound plus an add-on, and added that price competition takes place over the amount of the add-on.¹⁴ U.S. producers and importers mostly reported using transaction-by-transaction negotiations and/or contracts to set the prices for the PET resin that they sold (table V-1). Importers reporting “other” methods named meeting competitive offers and pricing based on raw material prices reported by IHS or PET resin prices reported by PCI.¹⁵ At the hearing, both petitioners and respondents reported that market participants use several publications to track prices as a reference.¹⁶

Table V-1

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

Method	U.S. producers	Importers
Transaction-by-transaction	4	***
Contract	4	***
Set price list	0	***
Other	0	***

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.

¹³ Several purchasers noted that they did not know because they purchased on a delivered basis.

¹⁴ See conference transcript, p. 36 (Cullen), hearing transcript, p. 43 (Cullen), and staff telephone interview with ***. DAK Americas added that purchasers may press for contracts with somewhat different indexes for raw material prices, such as an index based on an international raw materials price. Conference transcript, p. 59 (Cullen).

¹⁵ IHS and PCI are firms that provide subscription-based data on chemical industries. See <https://www.ihs.com/products/chemical-companies-handbooks-index.html> and <http://www.woodmac.com/pcigroup/about>, accessed on January 20, 2016. See also ***.

¹⁶ M&G described published prices as somewhat accurate, and DAK described its best source of pricing information as its own customers. Hearing transcript, p. 122 (Adlam) and p. 123 (Cullen). See also hearing transcript, p. 135 (Nolan) and p. 202 (Barenberg). At the hearing, purchaser Premium Waters stated that it had stopped using formula contracts approximately one year ago and now purchaser more on a spot basis. Hearing transcript, p. 202 (Zarda).

Sixteen purchasers reported that their purchases involve negotiations with their suppliers, although two stated that they did not.¹⁷ No purchaser reported quoting competitors' prices to their suppliers, and six stated explicitly that they do not do so. Purchasers reported that negotiations take place over a wide variety of issues, including price, service, transportation, payment terms, and supply continuity. U.S. producer DAK described its customers as "sophisticated" buyers that present comparative offers during negotiations.¹⁸

Producers and importers were asked if their firms' contracts set prices based on a comparison to raw material costs or price indexes. *** importers responded that they did, while *** importers responded that they did not. Among firms elaborating, producers *** as well as importers *** reported that they indexed their contracts to publicly available raw material cost data, such as that provided by IHS and/or PCI.¹⁹ M&G described its contracts as providing an automatic pass-through of raw material prices to PET resin prices.²⁰

Three U.S. producers indicated that short-term contracts could have a duration of one month, and three U.S. producers indicated that long-term contracts could last for up to three years. Among importers, *** indicated that short-term contracts were typically for one month, although *** indicated that such contracts were usually 75 days. ***.

U.S. producers were divided on whether annual contracts allowed price renegotiation or contained meet-or-release provisions. However, for short-term and long-term contracts, two and three producers (respectively) indicated that contracts do allow price renegotiation and may have meet-or-release provisions. Two producers also described contracts as fixing quantity but not price, although *** stated that they fixed both. Few importers were able to answer questions about contract provisions. Those that were able to do so indicated that contracts usually did not allow for price renegotiation, could fix quantity, price, or both quantity and price, and did not typically have meet-or-release provisions ***.

As shown in table V-2, U.S. producers and importers reported their 2014 U.S. commercial shipments of PET resin by type of sale. *** reported that at least *** percent of their sales were under long-term contracts, but *** reported that *** were spot sales. Importers reported selling relatively more product through short-term contracts and spot sales than U.S. producers did.

Table V-2
PET resin: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2014

* * * * *

¹⁷ ***.

¹⁸ Hearing transcript, p. 27 (McNaul).

¹⁹ Additionally, *** stated that it bases its prices for PET resin from China on the PCI Index report from England.

²⁰ Hearing transcript, p. 127 (Adlam).

Eleven purchasers reported that they purchase product weekly, one purchases biweekly, four purchase monthly, and two purchase annually. Sixteen purchasers reported that their purchasing patterns had not changed in since January 1, 2012, but *** reported “slight” changes and *** reported switching to ***.

Thirteen purchasers reported contacting from 1 to 6 suppliers before making a purchase, with three of those having contacted 1 supplier at the maximum. However, *** contacted between 4 and 20 suppliers before making a purchase.

Sales terms and discounts

U.S. producers and importers typically quote prices on a delivered basis, and reported sales terms of net 30 to net 60 days. Three U.S. producers and *** importers reported quantity discounts, four U.S. producers and *** importers reported annual total volume discounts, and two U.S. producers and *** importers reported other discounts, including early payment discounts and discounts for cash payments. Eleven importers reported no discounts.

Price leadership

Nine purchasers reported at least one (and often more) price leader in the U.S. PET resin market. Six purchasers named DAK, four named Indorama, three named M&G, two named Nan Ya, one named Polyquest, and one named “all non-U.S.-based suppliers” as price leaders. However, *** stated that there was no price leader. Purchasers described price leaders as leading by initiating price changes (including through announcements or letters), by making competitive bids that undercut others, and through their large size (for DAK). *** stated that DAK and Indorama led by notifying of price increases, including increases “not justified” by raw material price increases. ***, also stated that foreign suppliers have been price leaders during the last three years by offering lower quoted prices.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value²¹ of the following PET resin products²² shipped to unrelated U.S. customers during January 2012-September 2015. Data were also requested from importers

²¹ PET resin is often sold on a delivered basis. Several importers noted that they needed to deduct estimated shipping costs from their delivered prices to reach a f.o.b. shipment value. See ***.

²² One distinction between the pricing products is the use of the product. Importer *** indicated it did not know the use of the PET resin that it sold, but reported its data as ***. ***.

for the cost of PET resin products that they directly imported and used in their own production of other products.²³

Product 1.—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.

Product 2.—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.

Product 3.-- 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.

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.

Three U.S. producers and 17 importers of PET resin from subject countries provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.²⁴ Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' shipments of PET resin, *** percent of U.S. imports from Canada,²⁵ *** percent of imports from China,²⁶ *** percent of imports from India,²⁷ and *** percent of imports from Oman over January 2012-September 2015.²⁸ Purchase cost data accounted for *** percent of imports from India and *** percent of imports from Oman over the same period.²⁹

Price data for products 1-4 are presented in tables V-3 to V-9 and figure V-2. Commercial sales prices are presented in tables V-3, V-5, V-7, and V-8, while import cost data are presented in tables V-4, V-6, and V-9. (No data were received for import costs of ***.)

²³ ***. ***. ***. *** submitted pricing data in the preliminary phase, and no questionnaire in the final phase. Its preliminary-phase data are not used here, but pricing data for 2012-2014 also incorporating their preliminary-phase data are provided in appendix D. ***. ***.

²⁴ 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.

²⁵ ***.

²⁶ Petitioners questioned ***.

²⁷ Petitioners questioned ***.

²⁸ Coverage is calculated off of total imports rather than commercial shipments to allow comparison to the coverage of direct imports (which are not part of commercial shipments).

²⁹ Only very small volumes of purchase cost data were provided for imports from Canada and China.

Nonsubject country prices are presented in Appendix E. (Two importers, ***, provided pricing data only for nonsubject countries, and not for subject countries.)

In additional comments, ***. At the hearing, U.S. producer DAK described large purchasers as increasingly using direct importation to obtain PET resin from foreign countries, and described competition with directly-imported subject product as injuring U.S. producers.³⁰

Table V-3

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 1¹ and margins of underselling/(overselling), by quarters, January 2012-September 2015

* * * * *

Table V-4

PET resin: Weighted-average purchase costs and quantities of imported product 1¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Table V-5

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 2¹ and margins of underselling/(overselling), by quarters, January 2012-September 2015

* * * * *

Table V-6

PET resin: Weighted-average purchase costs and quantities of imported product 2¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Table V-7

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 3¹ and margins of underselling/(overselling), by quarters, January 2012-September 2015

* * * * *

Table V-8

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of domestic and imported product 4¹ and margins of underselling/(overselling), by quarters, January 2012-September 2015

* * * * *

³⁰ Hearing transcript, p. 43 (Cullen), p. 50 (Cannon), and p. 92 (Beck).

Table V-9

PET resin: Weighted-average purchase costs and quantities of imported product 4¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Figure V-2

PET resin: Weighted-average prices, costs, and quantities of domestic and imported product, by quarters, January 2012-September 2015

* * * * *

Direct imports (purchase cost)

In addition to the landed duty-paid cost of direct imports presented in tables V-3 thru V-9 and figure V-2, direct importers were also asked to report the factors that add to their costs of importing directly. *** estimated that logistical or supply chain costs were ***, of landed duty-paid cost, listing broker fees and transportation as these costs. *** listed inland logistic and warehousing costs as additional costs, and estimated these costs as *** percent of landed duty-paid costs.

Direct importers were also asked to indicate if they compare costs from U.S. importers and/or U.S. producers when determining whether to directly import or not. Three firms indicated they compare their costs to both U.S. importers and U.S. producers, four indicated that they compared costs to neither, and one indicated that it compared only to U.S. producers. At the hearing, Premium Waters indicated that it makes the decision on whether to purchase from importers or import directly on a transaction-by-transaction basis, with some foreign suppliers preferring to work with brokers and others willing to work directly with Premium Waters because of its reputation for prompt payment.³¹

Importers were also asked to identify the benefits of directly importing PET resin instead of purchasing PET resin from a U.S. producer or importer. Table V-10 presents relevant direct importers' responses.

Table V-10

PET resin: Importer responses to benefits of direct importing

* * * * *

Price trends

PET resin prices and import costs decreased during January 2012-September 2015.³² Table V-11 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from 25.7 to 32.0 percent during January-March 2012 through

³¹ Hearing transcript, p. 233 (Zarda).

³² ***.

July-September 2015. Over the same period, prices of Canadian *** declined *** percent, prices of Chinese product 1 declined *** percent, Indian price decreases ranged from *** percent along with a cost decrease of *** percent, and Omani price decreases ranged from *** percent with a cost decrease of *** percent.³³

Petitioners described PET resin prices as falling faster than U.S. producers' costs over January 2012-September 2015.³⁴ However, Octal described U.S. PET resin prices as falling at approximately the same rate as raw material prices over the same period.³⁵

Table V-11

PET resin: Summary of weighted-average f.o.b. prices and costs for products 1-4 from the United States, Canada, China, India, and Oman

* * * * *

Price comparisons

As shown in table V-12, prices for PET resin imported from Canada, China, India, and Oman were below those for U.S.-produced product in 98 of 169 instances (for a total quantity of *** pounds); margins of underselling ranged from 0.0 to 41.9 percent. In the other 71 instances (for a total quantity of *** pounds), prices for PET resin from Canada, China, India, and Oman were between 0.1 and 42.4 percent above prices for the domestic product. Only prices for commercial sales were compared.

In addition, in their postconference brief, petitioners provided citations to *** citations that described PET resin from Asia, and especially China, as lower-priced than U.S.-produced PET resin and as putting price pressure on U.S.-produced PET resin.³⁶ At the hearing, DAK described the underselling by subject imports as most "extreme" in 2014.³⁷ DAK also stated that across different types of PET resin, there is usually a narrow range of prices.³⁸

³³ For purposes of this price trend analysis, products with fewer than 9 quarters of data were not included, although percent changes are calculated and presented in the table.

³⁴ See prehearing brief of petitioners, p. 2.

³⁵ See prehearing brief of Octal, pp. 22-26 and hearing transcript, pp. 143 and 186 (Barenberg).

³⁶ Postconference brief of petitioners, pp. 27-28. See also petitioners' posthearing brief, response to questions, p. 2.

³⁷ Hearing transcript, p. 26 (McNaul).

³⁸ Hearing transcript, pp. 125-126 (Cullen).

Table V-12

PET resin: Instances of underselling/overselling and the range and average of margins, by country, January 2012-September 2015

Source	Underselling				
	Number of quarters	Quantity ¹ (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Canada	35	***	5.9	***	***
China	17	***	6.5	***	***
India	14	***	5.8	***	***
Oman	32	***	8.7	***	***
Total	98	***	6.9	0.0	41.9
Source	(Overselling)				
	Number of quarters	Quantity ¹ (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Canada	13	***	(4.6)	***	***
China	18	***	(6.2)	***	***
India	16	***	(13.2)	***	***
Oman	24	***	(5.3)	***	***
Total	71	***	(7.2)	(0.1)	(42.4)

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.

Average selling price by mode of packaging

Producers and importers were asked to estimate the average selling price in 2015 for PET resin sold by different modes of packaging and/or transport. Among producers, *** provided responses, but *** did not. Answers of responding producers and importers are summarized in table V-13.

Table V-13

PET resin: Average selling price in 2015, by mode of packaging or transport

* * * * *

LOST SALES AND LOST REVENUE

In the preliminary phase of these investigations, the Commission requested U.S. producers of PET resin to report purchasers where they experienced instances of lost sales or revenue due to competition from imports of PET resin from Canada, China, India, and/or Oman during January 2012-March 2015. *** U.S. producers submitted the lost sale and lost revenue worksheet. The *** responding U.S. producers identified 27 firms where they lost sales or

revenue (21 of which consisted of only lost sales allegations, 3 of which consisted of only lost revenue allegations, and 3 of which consisted of both types of allegations).³⁹

In the final phase of these investigations, *** U.S. producers reported that they had to reduce prices and roll back announced price increases, and *** firms reported that they had lost sales.

As noted in part II, the Commission received purchaser questionnaires from 18 purchasers. Table V-14 summarizes the changes in purchasing patterns from the purchaser purchase data.

Table V-14
PET resin: Purchasers' responses to purchasing patterns

* * * * *

Most purchasers indicated that they did not switch any of their purchases from U.S. PET resin to imported PET resin. Specifically, 14 purchasers stated that they did not switch to Canadian product, 14 did not switch to Chinese product, 13 did not switch to Indian product, 13 did not switch to Omani product, 14 did not switch to Korean product, 13 did not switch to Mexican product, 14 did not switch to Taiwan product, and 12 did not switch to other nonsubject country product.

However, some purchasers did switch at least some purchases from U.S. PET resin to imported PET resin. *** indicated that it shifted *** pounds to lower-priced Chinese product, although it did not answer whether price was the primary reason for the shift. *** switched an unspecified amount to Indian product, but stated that the Indian product was not lower-priced and that it switched ***. *** switched *** pounds to lower-priced Omani product although it did not answer whether price was the primary reason for the shift. *** stated that it switched *** to Mexico because ***. Additionally, *** switched *** to lower-priced product from other nonsubject countries.

When asked if U.S. producers reduced their prices after January 1, 2012 in order to compete with imported product from subject and/or nonsubject countries, most purchasers answered that they did not know. The majority of those that did respond stated that U.S. producers did not reduce prices in order to compete with imports, as described below.

Among those that did respond for Canada, *** stated that U.S. producers ***. Four other purchasers stated that U.S. producers had not reduced prices in response to competition from Canadian product.

Among purchasers responding for China, India, and Oman, two stated that U.S. producers lowered prices (with one indicating by 3 percent, and the other not specifying a

³⁹ Effective October 1, 2015, the Commission changed its rules associated with domestic industry provision of allegations of lost sales and lost revenue. The Commission rules were changed to ask petitioners to provide a list of purchasers where they lost sales or revenue, instead of transaction-specific incidents. Information from the preliminary phase related to lost sales and lost revenue allegations under the prior Commission rules is located in Appendix F.

reduction amount but ***. Four other purchasers stated that U.S. producers had not reduced prices in response to competition from Chinese or Indian product, and five stated that U.S. producers had not reduced prices in response to competition from Omani product.

Three to four purchasers (depending on the country) indicated that U.S. producers had not reduced prices to compete with product from Korea, Mexico, Taiwan, and other nonsubject countries. Two purchasers stated that U.S. producers had reduced prices to compete with product from other nonsubject countries.

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. These data are believed to account for virtually all U.S. production of PET resin in 2014. 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 declined from 2012 to 2014, but improved in January-September 2015 as compared to January-September 2014. The reported aggregate net sales quantity declined by *** percent between 2012 and 2014, 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 increased by *** percent, while the aggregate net sales value declined by *** percent. Collectively, operating costs and expenses declined by *** percent during this time. As a result of the *** as 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 2012 and January-September 2015.¹

On a per-unit basis, the net sales value declined by \$*** from 2012 to 2014, while total operating costs and expenses declined by about \$*** during this time. The ***. The net sales value was \$*** lower in January-September 2015 as compared to January-September 2014, while total operating costs and expenses were lower by \$***. The ***.² As previously mentioned, the trends in gross and net income are similar to operating income during the period examined.³

¹ While gross, operating, and net profitability *** from 2012 to 2014, the industry experienced *** in 2014 as net other expenses ***.

² As previously discussed in this report, a significant amount of PET resin is sold using pricing methods based on fluctuations in raw materials costs. From 2012 to 2014, per-unit MEG *** percent, per-unit PTA *** percent, and per-unit other raw material costs *** percent. Between the comparable interim periods, MEG was *** percent, PTA was *** percent, and other raw material costs were *** percent.

³ In its posthearing brief, respondent Reliance focuses on the difference in per-unit raw material costs ***. Posthearing brief of Reliance, Exhibit 1. ***. Email from ***, March 16, 2016.

Table VI-1

PET resin: Results of operations of U.S. producers, 2012-14, and January-September 2014-15

* * * * *

Table VI-2

PET resin: Selected results of operations of U.S. producers, by firm, 2012-14, and January-September 2014-15

* * * * *

Raw material costs accounted for an average *** percent of total COGS for the reporting period, and had the greatest impact on the decrease in COGS during this time.⁴ During the preliminary phase of these investigations, some firms reported that raw materials are purchased from related sources.⁵ In order to provide more detail on the effects of these transactions on reported profitability, U.S. producers provided alternative raw material cost data that exclude the profit component for raw materials purchased from related sources, including internal sources. Appendix G presents operations on PET resin using these alternative cost data.

SG&A expenses, which accounted for *** percent of overall operating costs and expenses during the reporting period, generally increased on a per-unit basis and as a ratio to net sales.⁶

During the preliminary and final phases of these investigations, U.S. producers were asked various questions related to raw material purchases. According to DAK, ***.⁷ ***.⁸ **.⁹

According to Indorama, ***.¹⁰ ***.¹¹ ***.¹²

According to M&G, ***.¹³ ***.¹⁴

⁴ Raw material costs include MEG, PTA, and ***. Emails from ***, January 27, 2016, ***, January 28, 2016, and ***, February 8, 2016. During the reporting period, MEG, PTA, and other raw materials accounted for ***, respectively, of total raw material costs.

⁵ ***. Email from ***, March 27, 2015. ***. Emails from ***, March 26, 2015, and ***, February 1, 2016. ***. Email from ***, March 8, 2016.

***. Emails from ***, April 13, 2015. ***. Emails from ***, April 10, 2015.

⁶ ***. Emails from ***, April 1-2, 2015, and February 4, 2016. ***. As a ratio to sales, ***. Email from ***, March 8, 2016.

⁷ Email from ***, April 10, 2015.

⁸ Email from ***, March 8, 2016. *See also* footnote 4 in this section of the report.

⁹ U.S. producers' questionnaire response of ***, questions III-3 and III-11a.

¹⁰ Email from ***, March 8, 2016. *See also* footnote 4 in this section of the report.

¹¹ Email from ***, March 14, 2016.

¹² U.S. producers' questionnaire response of ***, questions III-3 and III-11a, and email from ***, February 1, 2016.

¹³ Email from ***, April 10, 2015. ***. Email from ***, March 8, 2016.

¹⁴ U.S. producers' questionnaire response of ***, questions III-3 and III-11a.

According to Nan Ya, ***.¹⁵ ***.¹⁶ ***.¹⁷

Questionnaire responses regarding raw material purchases and the effects of increasing or decreasing raw material prices on reported profitability are presented in Appendix H.

Variance analysis

The variance analysis presented in table VI-3 is based on the data in table VI-1.¹⁸ The analysis shows that the *** in operating income from 2012 to 2014 is primarily attributable to ***. Between the comparable interim periods, the *** operating income in January-September 2015 is primarily attributable to ***.

Table VI-3

PET resin: Variance analysis on the operations of U.S. producers, 2012-14, and January-September 2014-15

* * * * *

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-4. Four firms reported capital expenditure data, and three firms reported research and development ("R&D") expenses. Aggregate capital expenditures notably increased from 2012 to 2014, and were also notably higher in January-September 2015 as compared to January-September 2014. The vast majority of reported capital expenditures reflect ***.¹⁹ In addition, ***.²⁰ ***.²¹ R&D expenses reported by ***.²² R&D expenses reported by ***.²³

¹⁵ Email from ***, April 10, 2015.

¹⁶ Email from ***, March 8, 2016. *See also* footnote 4 in this section of the report.

¹⁷ U.S. producers' questionnaire response of ***, questions III-3 and III-11a.

¹⁸ The Commission's variance analysis is calculated in three parts: sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost variance is calculated as the change in unit price or unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or unit cost. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances.

¹⁹ U.S. producers' questionnaire response of ***, question III-15.

²⁰ U.S. producers' questionnaire response of ***, question III-15.

²¹ U.S. producers' questionnaire response of ***, question III-15.

²² Email from ***, February 8, 2016.

²³ Email from ***, February 1, 2016.

The total assets utilized in the production, warehousing, and sale of PET resin increased from \$*** in 2012 to \$*** in 2014. The ROA consistently declined from *** percent in 2012 to *** percent in 2014.²⁴

Table VI-4

PET resin: Capital expenditures, R&D expenses, and total assets, and return on assets of U.S. producers, 2012-14, and January-September 2014-15

* * * * *

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-5. Firm-specific responses are provided in Appendix I.

Table VI-5

PET resin: Negative effects of imports as reported by U.S. producers, by factor

* * * * *

²⁴ 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 were generally required in order to report a total asset value for the subject product.

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors¹--

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

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

- (VI) *the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,*
- (VII) *in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),*
- (VIII) *the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*
- (IX) *any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).²*

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

² Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, "... the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

THE INDUSTRY IN CANADA

The Commission issued a foreign producer questionnaire to Selenis, the only firm in Canada known to produce and/or export PET resin based on the record from the preliminary phase of these investigations.³ Selenis did not respond to the Commission's request for information in these final phases of investigations for its foreign producer questionnaire; therefore, data presented for Canada is from Selenis' foreign producer questionnaire response in the preliminary phase of these investigations. ***.⁴ Counsel for Selenis provided the Commission with a letter on February 26, 2016 ***.⁵ Table VII-1 presents summary information on the PET resin operations of Selenis in Canada during 2012-14.

Table VII-1
PET resin: Canadian producer's summary data, 2012-14

* * * * *

Table VII-2 presents information on the PET resin operations of Selenis. Selenis reported that ***. The company also reported it is working on ***.⁶

Selenis' production of PET resin increased by *** percent in 2013, decreased by *** percent in 2014, and was *** percent higher in 2014 than in 2012. Selenis projected an increase in PET resin production of *** percent in 2015 and 2016 over 2014 production levels.

Exports to the United States, as a share of total shipments were *** percent in 2011, *** percent in 2013, and *** percent in 2014, a net decrease of *** percentage points. Exports to other markets decreased *** percentage points and home market shipments increased *** percentage points between 2012 and 2014. Total exports, as a share of total shipments, are projected to decline in 2015 and 2016.

Table VII-2
PET resin: Data for Selenis' operations in Canada, 2012-14, and projected 2015-16

* * * * *

As shown in table VII-3, Selenis did not produce other products on the same equipment and machinery used in the production of PET resin that is the subject of these investigations. Selenis stated that while it can shift production to other specialty plastic products, ***.

³ This firm was identified through a review of information submitted in the petition, ***, and the preliminary phase of these investigations.

⁴ ***. Petitioners' prehearing brief, exh. 8.

⁵ ***. Selenis' Letter to the Commission, February 26, 2016.

⁶ Selenis questionnaire response in the preliminary phase of these investigations, section II-3.

Table VII-3

PET resin: Selenis' overall capacity and production on the same equipment as subject production, 2012-14

* * * * *

Table VII-4 presents data on Canada's exports of PET resin as reported under HS 3907.60. United States is by far the top destination for PET resin exports from Canada from 2012 to 2014. Canada's exports of PET resin, by quantity, grew by 10.8 percent from 2012 to 2014.

Table VII-4

PET resin: Canadian exports, 2012-14

Item	Calendar year		
	2012	2013	2014
	Quantity (1,000 pounds)		
Canada's exports to the United States	312,803	358,099	362,751
Canada's exports to other top sources.-- Malaysia	10,602	4,965	6,997
Mexico	10,763	9,187	4,085
China	3,748	3,144	3,552
Brazil	3,333	2,712	3,437
Ireland	3,616	1,532	1,043
Portugal	0	24	1,010
Netherlands	154	187	159
Korea South	104	165	104
Singapore	11	0	13
Germany	0	11	11
All other sources	796	132	33
Total	345,930	380,159	383,194
Share of quantity (percent)			
Canada's exports to the United States	90.4	94.2	94.7
Canada's exports to other top sources.-- Malaysia	3.1	1.3	1.8
Mexico	3.1	2.4	1.1
China	1.1	0.8	0.9
Brazil	1.0	0.7	0.9
Ireland	1.0	0.4	0.3
Portugal	0.0	0.0	0.3
Netherlands	0.0	0.0	0.0
Korea South	0.0	0.0	0.0
Singapore	0.0	0.0	0.0
Germany	0.0	0.0	0.0
All other sources	0.2	0.0	0.0
Total	100.0	100.0	100.0

Source: Official Canadian exports statistics under HS 3907.60 as reported by statistics Canada in the GTIS/GTA database, accessed December 29, 2015.

THE INDUSTRY IN CHINA

The Commission issued foreign producers' or exporters' questionnaires to 34 firms in China believed to produce and/or export PET resin.⁷ No firm in China submitted questionnaire responses in these final phase investigations. Useable responses to the Commission's questionnaire were received from seven firms in the preliminary phase of these investigations: Dragon Special Resin (Xiamen) Co., Ltd. ("Dragon"), Far Eastern Industries (Shanghai) Ltd. ("Far Eastern"), Jiangsu Sanfangxiang Group Co. Ltd. ("Jiangsu"), Shanghai Hengyi Polyester Fiber Co., Ltd. ("Shanghai Hengyi"), Hainan Yisheng Petrochemical Co., Ltd. ("Hainan Yisheng"), Zhejiang Wankai New Materials Co., Ltd. ("Zhejiang Wankai"), and China Resources Packaging Materials Co. Ltd. ("China Resources"). Data presented for the industry in China are from the submissions of these seven firms during the preliminary phase. These firms' exports to the United States accounted for approximately *** percent of U.S. imports of PET resin from China during 2012-14. According to estimates requested of the responding Chinese producers, the production of PET resin in China reported in this Part of the report accounts for approximately *** percent of overall production of PET resin in China. Table VII-5 presents summary information on the PET resin operations of the responding producers and exporters in China from the preliminary phase of these investigations.

Table VII-5
PET Resin: Data for producers in China, 2012-14

* * * * *

Table VII-6 presents information on the PET resin operations of the Chinese foreign producers. The aggregate reported annual capacity of the seven responding firms to produce PET resin increased in each year from 2012-14, and is projected to stabilize at the 2014 level in both 2015 and 2016. *** opened a new plant in October 2013 that mainly produces PTA & PET, increasing overall capacity to *** pounds in 2014. *** expanded its capacity by *** pounds in May 2012, reaching a total of *** pounds. *** expanded its new facility by *** per year in March 2012.

Production of PET resin increased by *** percent between 2012 and 2014, and is projected to increase by *** percent between 2014 and 2015. Capacity utilization rose from *** percent in 2012 to *** percent in 2014. Projections indicate that capacity utilization in China is expected to increase slightly to *** percent by 2016.

Table VII-6
PET resin: Data for producers in China, 2012-14, and projected 2015-16

* * * * *

⁷ These firms were identified through a review of information submitted in the petition, ***, and the preliminary phase of these investigations.

In 2014, *** percent of total reported shipments of PET resin produced in China were exported to the United States. Exports from China to the United States increased overall by *** percent from 2012 to 2014 and are projected to decrease by *** percent by 2016. In 2014, *** percent of total shipments of PET resin produced in China were exported to markets other than the United States. The seven Chinese producers reported that their export markets other than the United States are ***.

As shown in table VII-7, only a small percentage of other products are produced on the same equipment that produces the subject PET resin. Two firms, *** reported producing other products on the same equipment. Both firms reported production of *** and indicated machine maintenance as the only constraint to switching between the two products. *** was the only Chinese producer to indicate inventories were held in the United States since 2012.

Table VII-7
PET resin: Chinese producers' overall capacity and production on the same equipment as subject production, 2012-14

* * * * *

Table VII-8 presents data on China's exports of PET resin as reported under HS 3907.60. Japan is the top destination for PET resin exports from China from 2012 to 2014. From 2012 to 2014, China's exports of PET resin by quantity grew by 68 percent, with China's exports of PET resin to the United States more than doubling during the same period.

Table VII-8

PET resin: Chinese exports, 2012-14

Item	Calendar year		
	2012	2013	2014
	Quantity (1,000 pounds)		
China's exports to the United States	165,146	176,421	340,272
China's exports to other top sources.-- Japan	464,862	596,087	725,250
Russia	175,477	219,572	315,052
Indonesia	70,389	200,663	219,382
India	49,256	87,272	212,971
Philippines	101,477	122,467	208,610
Ukraine	214,395	240,271	182,219
Peru	55,947	120,884	178,449
Egypt	104,129	196,981	170,675
Nigeria	43,230	110,478	150,437
South Africa	97,017	102,319	149,167
All other sources	1,476,109	2,158,641	2,226,519
Total	3,017,434	4,329,883	5,079,003
Share of quantity (percent)			
China's exports to the United States	5.5	4.1	6.7
China's exports to other top sources.-- Japan	15.4	13.7	14.3
Russia	5.8	5.1	6.2
Indonesia	2.3	4.6	4.3
India	1.6	2.0	4.2
Philippines	3.4	2.8	4.1
Ukraine	7.1	5.5	3.6
Peru	1.9	2.8	3.5
Egypt	3.5	4.5	3.4
Nigeria	1.4	2.6	3.0
South Africa	3.2	2.4	2.9
All other sources	48.9	49.9	43.8
Total	100.0	100.0	100.0

Source: Official Chinese exports statistics under HS 3907.60 as reported by China Customs in the GTIS/GTA database, accessed December 29, 2015.

THE INDUSTRY IN INDIA

The Commission issued foreign producers' or exporters' questionnaires to 13 firms in India believed to produce and/or export PET resin.⁸ Useable responses to the Commission's questionnaire were received from four firms: Dhunseri; Ester Industries Limited ("Ester"); JBF Industries Limited ("JBF"); and Reliance. These firms' exports to the United States accounted for approximately *** percent of U.S. imports of PET resin from India during January 2012-September 2015. According to estimates requested of the responding Indian producers, the production of PET resin in India reported in this Part of the report accounts for approximately *** percent of overall production of PET resin in India. Table VII-9 summary presents information on the PET resin operations of the responding producers and exporters in India.

Table VII-9

PET resin: Summary data on firms in India, January 2012 through September 2015 aggregated

* * * * *

Table VII-10 presents information on Indian producers' changes in operations of PET resin since January 1, 2012. Three responding Indian producers reported expanding their capacity to produce PET resin since 2012 and one Indian producer reported annual shutdowns of one line in its plant for normal maintenance.

Table VII-10

PET resin: Indian producers' reported changes in operations, since January 1, 2012

* * * * *

Table VII-11 presents data on the PET resin operations of responding producers and exporters in India. Capacity increased by *** percent from 2012 to 2014, and increased *** from January-September 2014 to January-September 2015. Projected capacity of PET resin is expected to hold steady from 2016 to 2017.

Production of PET resin increased by *** percent from 2012 to 2014 and increased *** from January-September 2014 to January-September 2015. Projected production of PET resin is expected to decrease slightly (***) from 2016 to 2017. Capacity utilization remained high since 2012, fluctuating between *** percent to ***.

Table VII-11

PET resin: Data on industry in India, 2012-14, January to September 2014, and January to September 2015 and projection calendar years 2016 and 2017

* * * * *

⁸ These firms were identified through a review of information submitted in the petition, ***, and the preliminary phase of these investigations.

Commercial shipments to firms' home market represented the largest share of total shipments at *** percent in 2012, *** percent in 2013, *** percent in 2014, and *** in January-September 2015. Commercial shipments in the home market are projected to drop to *** percent in 2017. Exports to the United States, as a share of total shipments, increased from *** percent in 2012 to *** in 2013 before decreasing to *** percent in 2014 and decreasing further to *** percent from January-September 2015. Exports to the United States are projected to decrease to *** percent in 2017. Exports to all other markets (***) increased irregularly from *** percent in 2012 to *** percent in 2013, *** in 2014, and increased further to *** percent in January-September 2015. Exports to these other markets are projected to reach *** percent of total shipments in 2017.

Table VII-12 presents data on Indian producers' overall capacity to produce subject and nonsubject PET resin. All four Indian producers are able to produce other products on the same equipment and machinery used in the production of subject PET resin. These products are ***. The majority of subject PET resin produced in India is for cold-fill applications. Overall aggregated capacity of the four responding firms increased for Indian producers of PET resin from 2012 to January-September 2015.

Table VII-12

PET resin: Indian producers' overall capacity and production on the same equipment as subject production, 2012-14, January to September 2014, and January to September 2015

* * * * *

Table VII-13 presents responses by Indian producers on factors that affect their ability to shift production from subject to nonsubject PET resin.

Table VII-13

PET resin: Indian producers' factors that affect ability to shift production, since January 1, 2012

* * * * *

Table VII-14 presents data on India's exports of PET resin as reported under HS 3907.60. From 2012 to 2014, the United States and the United Arab Emirates are the top destinations for PET resin exports from India. India's overall export quantities of PET resin increased by 89.6 percent from 2012 to 2013, but declined in 2014. India's exports of PET resin to the United States also more than doubled from 2012 to 2013, but also declined in 2014.

Table VII-14
PET resin: Indian exports, 2012-14

Item	Calendar year		
	2012	2013	2014
	Quantity (1,000 pounds)		
India's exports to the United States	47,624	117,319	88,758
India's exports to other top sources.-- United Arab Emirates	88,388	85,458	92,605
Bangladesh	44,282	55,186	87,208
Israel	20,461	23,499	50,850
Ukraine	97	21,237	48,275
Turkey	18,737	33,945	46,191
Egypt	24,474	35,940	45,777
Bahrain	0	3,979	39,657
Uruguay	19,401	22,264	30,527
Nigeria	5,463	20,454	30,230
Mexico	8,472	16,200	22,236
All other sources	267,513	597,783	320,964
Total	544,912	1,033,265	903,278
Share of quantity (percent)			
India's exports to the United States	8.7	11.4	9.8
India's exports to other top sources.-- United Arab Emirates	16.2	8.3	10.3
Bangladesh	8.1	5.3	9.7
Israel	3.8	2.3	5.6
Ukraine	0.0	2.1	5.3
Turkey	3.4	3.3	5.1
Egypt	4.5	3.5	5.1
Bahrain	0.0	0.4	4.4
Uruguay	3.6	2.2	3.4
Nigeria	1.0	2.0	3.3
Mexico	1.6	1.6	2.5
All other sources	49.1	57.9	35.5
Total	100.0	100.0	100.0

Source: Official Indian exports statistics under HS 3907.60 as reported by India's Ministry of Commerce in the GTIS/GTA database, accessed December 29, 2015.

THE INDUSTRY IN OMAN

The Commission issued foreign producers' or exporters' questionnaires to one firm in Oman believed to produce and/or export PET resin.^{9 10} Octal provided the Commission with a questionnaire response and accounted for all PET resin production in Oman. Table VII-15 presents summary information on the PET resin operations of the Octal in Oman.

Table VII-15

PET resin: Summary data on firms in Oman, January 2012 through September 2015

* * * * *

Table VII-16 presents information on changes to the Octal's PET resin operations since January 1, 2012. Octal ***. **.

Table VII-16

PET resin: Omani producer's reported changes in operations, since January 1, 2012

* * * * *

Table VII-17 presents data on Octal production-related activities for PET resin in Oman from 2012 to September 2015. Production of PET resin increased by *** percent between 2012 and 2014 but decreased by *** percent in January-September 2015 compared to January-September 2014. Octal reported this increase in production from 2012 to 2014 as the result of opening their second plant, detailed above. Capacity utilization decreased irregularly, *** percent in 2012, *** percent in 2013, *** in 2014, and *** percent in January-September 2015. Octal projected its ***.

Exports to the United States, as a share of total shipments increased by *** percentage points between 2012 and 2014 and increased by *** percentage points in January-September 2015 compared to January-September 2014. Exports to other markets (***) decreased by *** percentage points from 2012 to 2014 and decreased by *** percentage points in January-September 2015 compared to January-September 2014. The share of exports to the United States is projected to stay the same in 2016 and 2017 at *** percent of total shipments.

⁹ This firm was identified through a review of information submitted in the petition, ***, and the preliminary phase of these investigations.

¹⁰ Petitioners argued that there is a new producer in Oman built by Oman Oil and LG International, due to start producing PET resin in 2016. Petitioners Prehearing Brief, p. 65. Respondent Octal argued that the information used by petitioners is outdated press articles and that most recent press articles pushes back the start date to 2018. Respondent Octal's posthearing brief, p. 8. Octal further testified that the financing for this plant has "disappeared" at this time and that this new production facility "will not be built any time in the foreseeable future." Hearing transcript, pp. 147-148 (Barenberg).

Table VII-17

PET resin: Data on industry in Oman, 2012-14, January to September 2014, and January to September 2015 and projection calendar years 2016 and 2017

* * * * *

The only nonsubject product produced by Octal using the same equipment and machinery as PET resin is PET sheet.¹¹ Octal reported ***.

Octal reported that it ***.

Table VII-18

PET resin: Omani producers' overall capacity and production on the same equipment as subject production, 2012-14, January to September 2014, and January to September 2015

* * * * *

Table VII-19 presents data on Oman's exports of PET resin as reported under HS 3907.60. The United States is the top destination for PET resin exports in 2014. Other top destinations include Algeria and Belgium from 2012 to 2014. Oman's export volume of PET resin grew by 70 percent from 2012 to 2014, with Oman's export volume of PET resin to the United States grew by 450 percent during the same period.

¹¹ *** and hearing transcript, p. 136 (Barenberg).

Table VII-19

PET resin: Omani exports, 2012-14

Item	Calendar year		
	2012	2013	2014
	Quantity (1,000 pounds)		
Oman's exports to the United States	35,741	135,553	196,518
Oman's exports to other top sources.--			
Algeria	40,651	47,673	93,381
Belgium	42,642	157,282	82,973
Morocco	6,936	18,003	46,330
United Kingdom	0	10,044	33,764
Romania	52,276	43,548	33,135
Spain	25,823	41,107	22,042
Ukraine	51	150	18,913
Italy	103,478	78,725	16,984
Bulgaria	19,628	18,404	16,566
Canada	520	3,172	15,095
All other sources	69,988	118,446	101,029
Total	397,734	672,108	676,731
Share of quantity (percent)			
Oman's exports to the United States	9.0	20.2	29.0
Oman's exports to other top sources.--			
Algeria	10.2	7.1	13.8
Belgium	10.7	23.4	12.3
Morocco	1.7	2.7	6.8
United Kingdom	0.0	1.5	5.0
Romania	13.1	6.5	4.9
Spain	6.5	6.1	3.3
Ukraine	0.0	0.0	2.8
Italy	26.0	11.7	2.5
Bulgaria	4.9	2.7	2.4
Canada	0.1	0.5	2.2
All other sources	17.6	17.6	14.9
Total	100.0	100.0	100.0

Source: Official import statistics under HS subheading 3907.60 as reported by various countries' statistical authorities in the GTIS/GTA database, accessed December 29, 2015.

COMBINED DATA FOR THE INDUSTRIES IN THE SUBJECT COUNTRIES

Table VII-20 presents aggregate data on production-related activities for producers of PET resin in Canada, China, India, and Oman from the preliminary and final phases of these investigations.

Table VII-20

PET resin: Data on industry in subject countries, 2012-14, and projection for calendar year 2016

* * * * *

Table VII-21 presents aggregate data on PET resin producers in Canada, China, India, and Oman's overall capacity to produce subject PET resin and nonsubject products using the same equipment.¹²

Table VII-21

PET resin: Subject producers' overall capacity and production using the same equipment as subject production, 2012-14, January to September 2014, and January to September 2015

* * * * *

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-22 presents data on U.S. importers' reported inventories of PET resin. U.S. importers' end-of-period inventories of imports from subject sources increased by *** percent between 2012 and 2014 and decreased by *** percent in January-September 2015 compared to January-September 2014. *** was the largest contributor to the U.S. importers' inventory increase of PET resin, accounting for *** percent of total inventory of PET resin.

Table VII-22

PET resin: U.S. importers' end-of-period inventories of imports by source, 2012-14, January to September 2014, and January to September 2015

* * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission asked U.S. importers of PET resin to indicate whether they imported or arranged for the importation of PET resin from Canada, China, India, Oman, and all other sources after September 30, 2015. Eighteen importers reported outstanding orders of PET resin from subject and nonsubject sources. These U.S. importers responses are shown in table VII-23.

¹² This table aggregates responses from both the preliminary and final phases of these investigations.

Table VII-23

PET resin: U.S. importers' outstanding orders subsequent to September 30, 2015

* * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS¹³

The subject countries are affected by import injury measures in a variety of third-country markets. Antidumping duties are in place on imports of PET resin from India in Argentina (8 percent, imposed in 2013) and South Africa (54.1 percent, imposed in 2006). Imports of PET resin from India are also subject to a 6.75 percent safeguard duty in place in Turkey since 2011. The European Union imposed countervailing duties on PET resin from India at a rate of €90.4/MT, imposed in 2000. Antidumping duties on PET resin imports from China were imposed by the European Union in 2004, Argentina in 2013, and Malaysia in 2015. Egypt initiated countervailing duty investigations against PET resin from China, India, and Oman in 2014.

In June 2015, Brazil initiated its own antidumping investigation against PET resin from China and India, with alleged dumping margins ranging from 3.1 to 39.3 percent, and recently made an affirmative preliminary determination. In addition, Egypt just initiated a safeguard action against all imports of PET resin.¹⁴

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.’”¹⁵

According to published sources, global capacity in 2014 was ***. Northeast Asia, and in particular China, accounts for *** of the global production capacity. North America changed from a *** percent share in 1990 to a *** percent share in 2014. In 2014, Northeast Asia (China, Hong Kong, Japan, North and South Korea, and Taiwan) was the *** in the world, with

¹³ *Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)*, USITC Publication 4531, May 2015, p. VII-8.

¹⁴ Petitioners Prehearing brief, p. 65.

¹⁵ *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).

*** of total global capacity.¹⁶ Table VII-24 presents capacity, production, trade and consumption data on a regional basis. Table VII-25 shows the top ten world producers, which accounts for *** of the global PET resin production capacity. Figure VII-1 shows regional consumption shares for 2011. Table VII-27 shows the world consumption of PET resin by end use. Table VII-26 presents export data for the larger PET resin producing countries. Throughout 2012-14, the United States has been among the largest exporters of PET resin in the world.

Table VII-24

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-25

PET resin: World top fifteen world producers of virgin PET resins—2014

* * * * *

Figure VII-1

PET resin: World consumption by region—2014 and forecast 2019

* * * * *

Table VII-26

PET resin: World Consumption by end use—2014 and forecast 2019

* * * * *

¹⁶ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 6. and *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, August 2015, p. 33.

Table VII-27

PET resin: Global exports, by country, 2012-14

Item	Calendar year		
	2012	2013	2014
	Quantity (1,000 pounds)		
United States	745,520	606,818	591,088
Subject exporters.--			
Canada	345,930	380,159	383,194
China	3,017,434	4,329,883	5,079,003
India	544,912	1,033,265	903,278
Oman	397,732	672,107	676,730
Subtotal, subject exporters	4,306,008	6,415,413	7,042,205
Other top exporters.--			
Taiwan	1,802,054	1,660,165	1,616,612
South Korea	1,748,418	1,804,669	1,592,723
Mexico	1,141,690	794,815	1,006,814
Lithuania	925,639	940,327	957,770
Netherlands	627,978	843,400	932,987
Thailand	824,366	890,659	831,409
Germany	881,379	876,236	765,185
Indonesia	470,599	446,740	736,481
Belgium	285,834	321,639	522,350
Spain	513,851	407,225	509,499
Subtotal, top exporters	9,221,809	8,985,874	9,471,830
All other exporters	3,170,909	2,971,247	3,148,627
Total exports	17,444,245	18,979,353	20,253,750
Value (1,000 dollars)			
United States	629,448	551,464	510,520
Subject exporters.--			
Canada	265,009	295,815	283,656
China	1,961,419	2,814,993	2,904,297
India	358,242	676,124	517,248
Oman	275,412	438,367	425,812
Subtotal, subject exporters	2,860,083	4,225,298	4,131,013
Other top exporters.--			
Taiwan	1,236,980	1,128,514	975,791
South Korea	1,195,966	1,221,955	989,009
Mexico	684,497	569,467	689,191
Lithuania	691,900	696,367	628,760
Netherlands	478,873	653,794	619,448
Thailand	541,103	591,955	499,738
Germany	636,304	643,499	510,140
Indonesia	316,813	295,847	409,128
Belgium	238,806	266,253	363,822
Spain	371,861	304,449	335,632
Subtotal, top exporters	6,393,104	6,372,102	6,020,660
All other exporters	2,211,459	2,065,796	1,934,560
Total exports	12,094,094	13,214,660	12,596,752

Table continued on following page.

Table VII-27--Continued

PET resin: Global exports, by country, 2012-14

Item	Calendar year		
	2012	2013	2014
	Unit value (dollars per pound)		
United States	0.84	0.91	0.86
Subject exporters.--			
Canada	0.77	0.78	0.74
China	0.65	0.65	0.57
India	0.66	0.65	0.57
Oman	0.69	0.65	0.63
Subtotal, subject exporters	0.66	0.66	0.59
Other top exporters.--			
Taiwan	0.69	0.68	0.60
South Korea	0.68	0.68	0.62
Mexico	0.60	0.72	0.68
Lithuania	0.75	0.74	0.66
Netherlands	0.76	0.78	0.66
Thailand	0.66	0.66	0.60
Germany	0.72	0.73	0.67
Indonesia	0.67	0.66	0.56
Belgium	0.84	0.83	0.70
Spain	0.72	0.75	0.66
Subtotal, top exporters	0.69	0.71	0.64
All other exporters	0.70	0.70	0.61
Total exports	0.69	0.70	0.62
Share of quantity (percent)			
United States	5.2	4.2	4.1
Subject exporters.--			
Canada	2.2	2.2	2.3
China	16.2	21.3	23.1
India	3.0	5.1	4.1
Oman	2.3	3.3	3.4
Subtotal, subject exporters	23.6	32.0	32.8
Other top exporters.--			
Taiwan	10.2	8.5	7.7
South Korea	9.9	9.2	7.9
Mexico	5.7	4.3	5.5
Lithuania	5.7	5.3	5.0
Netherlands	4.0	4.9	4.9
Thailand	4.5	4.5	4.0
Germany	5.3	4.9	4.0
Indonesia	2.6	2.2	3.2
Belgium	2.0	2.0	2.9
Spain	3.1	2.3	2.7
Subtotal, top exporters	52.9	48.2	47.8
All other exporters	18.3	15.6	15.4
Total exports	100.0	100.0	100.0

Source: Official exports statistics under HTS subheading 3907.60 as reported by each country's statistical authority in the GTIS/GTA database, accessed December 29, 2015.

Mexico

Mexico is a producer of PET Resin. Table VII-28 shows Mexican producers and their capacities.

Table VII-28
PET resin: Mexican producers

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Mexico is a net exporter of PET solid-state resin, and the major export destinations are ***¹⁷ Table VII-29 shows supply and demand for 2010 and 2011.¹⁸

Table VII-29
PET resin: Mexican Supply and Demand, 2012-14

* * * * *

In terms of consumption, Mexico is *** per capita consumers of carbonated soft drinks in the world. PET resin uses include carbonated soft drinks, mineral water, edible oils, and food jars. Mexican consumption of PET resin for 2012-14 and 2019 (forecast) are shown in table VII-21. The average annual growth rate from 2014-2019 is *** percent, which is driven by the consumption of ***.¹⁹

Table VII-30
PET resin: Mexican consumption by end use 2012-14, 2019 (forecast) and average annual growth rate 2014-19

* * * * *

¹⁷ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 50.

¹⁸ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 48.

¹⁹ *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, IHS, August 2015, p. 46.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations 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
80 FR 13889 March 17, 2015	<i>Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations</i>	https://www.federalregister.gov/articles/2015/03/17/2015-05963/certain-polyethylene-terephthalate-resin-from-canada-china-india-and-oman-institution-of
80 FR 18376 April 6, 2015	<i>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</i>	https://www.federalregister.gov/articles/2015/04/06/2015-07830/certain-polyethylene-terephthalate-resin-from-canada-the-peoples-republic-of-china-india-and-the
80 FR 18369 April 6, 2015	<i>Certain Polyethylene Terephthalate Resin from the People's Republic of China, India, and the Sultanate of Oman: Initiation of Countervailing Duty Investigations</i>	https://www.federalregister.gov/articles/2015/04/06/2015-07835/certain-polyethylene-terephthalate-resin-from-the-peoples-republic-of-china-india-and-the-sultanate
80 FR 24276 April 30, 2015	<i>Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman: Preliminary Determinations</i>	https://www.federalregister.gov/articles/2015/04/30/2015-10045/certain-polyethylene-terephthalate-resin-from-canada-china-india-and-oman
80 FR 48819 August 14, 2015	<i>Countervailing duty Investigation of Certain Polyethylene Terephthalate Resin from India: Preliminary Affirmative Determination, Preliminary Affirmative Critical Circumstances Determination, in Part, and Alignment of Final Determination with Final Antidumping Duty Determination</i>	https://www.federalregister.gov/articles/2015/08/14/2015-20124/countervailing-duty-investigation-of-certain-polyethylene-terephthalate-resin-from-india-preliminary
80 FR 48810 August 14, 2015	<i>Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from the People's Republic of China. Preliminary Determination and Alignment of Final Determination with Final Antidumping Duty Determination</i>	https://www.federalregister.gov/articles/2015/08/14/2015-20088/countervailing-duty-investigation-of-certain-polyethylene-terephthalate-resin-from-the-peoples
80 FR 48808 August 14, 2015	<i>Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Preliminary Negative Countervailing Duty Determination and Alignment of Final Countervailing duty Determination with Final Antidumping Duty Determination</i>	https://www.federalregister.gov/articles/2015/08/14/2015-20086/certain-polyethylene-terephthalate-resin-from-the-sultanate-of-oman-preliminary-negative

80 FR 62019 October 15, 2015	<i>Certain Polyethylene Terephthalate Resin from Canada: Affirmative Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination</i>	https://www.federalregister.gov/article/s/2015/10/15/2015-26263/certain-polyethylene-terephthalate-resin-from-canada-affirmative-preliminary-determination-of-sales
80 FR 62021 October 15, 2015	<i>Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Affirmative Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination</i>	https://www.federalregister.gov/article/s/2015/10/15/2015-26261/certain-polyethylene-terephthalate-resin-from-the-sultanate-of-oman-affirmative-preliminary
80 FR 62029 October 15, 2015	<i>Certain Polyethylene Terephthalate Resin from India: Affirmative Preliminary Determination of Sales at Less Than Fair Value, Affirmative Preliminary Determination of Critical Circumstances, and Postponement of Final Determination</i>	https://www.federalregister.gov/article/s/2015/10/15/2015-26262/certain-polyethylene-terephthalate-resin-from-india-affirmative-preliminary-determination-of-sales
80 FR 69643 November 10, 2015	<i>Certain Polyethylene Terephthalate Resin from the People's Republic of China: Notice of Correction to Preliminary Affirmative Less Than Fair Value Determination</i>	https://www.federalregister.gov/article/s/2015/11/10/2015-28665/certain-polyethylene-terephthalate-resin-from-the-peoples-republic-of-china-notice-of-correction-to
80 FR 68563 November 5, 2015	<i>Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman; Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations</i>	https://www.federalregister.gov/article/s/2015/11/05/2015-28260/polyethylene-terephthalate-pet-resin-from-canada-china-india-and-oman-scheduling-of-the-final-phase
81 FR 5784, February 3, 2016	<i>Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman; Revised Schedule for Hearing in Final Investigations</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-02-03/pdf/2016-01901.pdf
81 FR 13337, March 14, 2016	<i>Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from the People's Republic of China: Final Affirmative Determination</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05715.pdf
81 FR 13334, March 14, 2016	<i>Countervailing Duty Investigation of Certain Polyethylene Terephthalate Resin from India: Final Affirmative Determination and Final Affirmative Critical Circumstances Determination, in Part</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05710.pdf
81 FR 13321, March 14, 2016	<i>Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Negative Countervailing Duty Determination</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05713.pdf
81 FR 13319, March 14, 2016	<i>Certain Polyethylene Terephthalate Resin from Canada: Final Determination of Sales at Less Than Fair Value</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05703.pdf
81 FR 13331, March 14, 2016	<i>Certain Polyethylene Terephthalate Resin from the People's Republic of China: Final Determination of Sales at Less Than Fair Value,</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05707.pdf

81 FR 13327, March 14, 2016	<i>Certain Polyethylene Terephthalate Resin from India: Final Determination of Sales at Less Than Fair Value and Final Affirmative Determination of Critical Circumstances</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05712.pdf
81 FR 13336, March 14, 2016	<i>Certain Polyethylene Terephthalate Resin from the Sultanate of Oman: Final Determination of Sales at Less Than Fair Value</i>	https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05705.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject: Polyethylene Terephthalate (PET) Resin from Canada,
China, India, and Oman

Inv. Nos.: 701-TA-531-533 and 731-TA-1270-1273 (Final)

Date and Time: March 1, 2016 - 10:30 a.m.

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

OPENING REMARKS:

Petitioners (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
Respondents (**Matthew M. Nolan**, Arent Fox LLP)

In Support of the Imposition of Antidumping and Countervailing Duty Orders:

Kelley Drye & Warren LLP
Washington, DC
on behalf of

DAK Americas, LLC
M&G Chemicals
Nan Ya Plastics

Jon McNaull, Vice President and General Manager, PET Resins,
DAK Americas, LLC

Mark Adlam, North America Commercial Manager, M&G
Chemicals

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

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

John Cullen, Director of PET Resin Sales and Marketing,
DAK Americas

Gina Beck, Economic Consultant, Georgetown Economic
Services, LLC

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

**In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:**

Arent Fox LLP
Washington, DC
on behalf of

Reliance Industries, Ltd. (“Reliance”)

Anil Rajvanshi, Senior Executive Vice President, Reliance

Rajnish Jayaswal, General Manager, Reliance

Matthew M. Nolan)	
)	– OF COUNSEL
Nancy A. Noonan)	

Alston & Bird LLP
Washington, DC
on behalf of

Premium Waters, Inc. (“Premium”)

Bernie Zarda, Senior Vice President, Supply Chain, Premium

Jonathan Fee)	
)	– OF COUNSEL
Chunlian Yang)	

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

Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, DC
on behalf of

OCTAL SAOC- FZC (“OCTAL”)

Joe Barenberg, Chief Operating Officer, OCTAL Inc.

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

REBUTTAL/CLOSING REMARKS:

Petitioners (**Paul C. Rosenthal** and **Kathleen W. Cannon**, Kelley Drye & Warren LLP)
Respondents (**Matthew M. Nolan**, Arent Fox LLP *and* **James P. Durling**,
Curtis, Mallet-Prevost, Colt & Mosle LLP)

APPENDIX C

SUMMARY DATA

Table C-1

PET resin: Summary data concerning the U.S. market, 2012-14, January to September 2014, and January to September 2015

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Report data					Period changes			
	2012	Calendar year 2013	2014	January to September 2014	2015	2012-14	Calendar year 2012-13	2013-14	Jan-Sep 2014-15
U.S. consumption quantity:									
Amount.....	***	***	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Canada.....	***	***	***	***	***	***	***	***	***
China.....	***	***	***	***	***	***	***	***	***
India.....	***	***	***	***	***	***	***	***	***
Oman.....	***	***	***	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***	***	***	***
Of which subject to non de minimis AD margins.....	***	***	***	***	***	***	***	***	***
Of which subject to non de minimis CVD margins.....	***	***	***	***	***	***	***	***	***
Korea.....	***	***	***	***	***	***	***	***	***
Mexico.....	***	***	***	***	***	***	***	***	***
Taiwan.....	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	***	***	***	***
Nonsubject sources.....	***	***	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount.....	***	***	***	***	***	***	***	***	***
Producers' share (fn1).....	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Canada.....	***	***	***	***	***	***	***	***	***
China.....	***	***	***	***	***	***	***	***	***
India.....	***	***	***	***	***	***	***	***	***
Oman.....	***	***	***	***	***	***	***	***	***
Subject sources.....	***	***	***	***	***	***	***	***	***
Of which subject to non de minimis AD margins.....	***	***	***	***	***	***	***	***	***
Of which subject to non de minimis CVD margins.....	***	***	***	***	***	***	***	***	***
Korea.....	***	***	***	***	***	***	***	***	***
Mexico.....	***	***	***	***	***	***	***	***	***
Taiwan.....	***	***	***	***	***	***	***	***	***
All other sources.....	***	***	***	***	***	***	***	***	***
Nonsubject sources.....	***	***	***	***	***	***	***	***	***
Total imports.....	***	***	***	***	***	***	***	***	***
U.S. imports from:									
Canada:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
China:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
India:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Oman:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Subject sources:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Subtotal, subject to AD (fn3):									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Share of subject imports.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Subtotal, subject to CVD (fn4):									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Share of subject imports.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Korea:									
Quantity.....	6,813	11,077	3,334	2,903	6,058	(51.1)	62.6	(69.9)	108.7
Value.....	5,041	8,044	2,183	1,898	3,141	(56.7)	59.6	(72.9)	65.5
Unit value.....	\$0.74	\$0.73	\$0.65	\$0.65	\$0.52	(11.5)	(1.8)	(9.8)	(20.7)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Mexico:									
Quantity.....	307,005	212,080	384,706	284,329	312,693	25.3	(30.9)	81.4	10.0
Value.....	232,554	148,768	278,741	208,249	180,995	19.9	(36.0)	87.4	(13.1)
Unit value.....	\$0.76	\$0.70	\$0.72	\$0.73	\$0.58	(4.3)	(7.4)	3.3	(21.0)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Taiwan:									
Quantity.....	74,594	78,949	65,992	54,664	81,072	(11.5)	5.8	(16.4)	48.3
Value.....	56,646	63,747	49,006	40,729	48,415	(13.5)	12.5	(23.1)	18.9
Unit value.....	\$0.76	\$0.81	\$0.74	\$0.75	\$0.60	(2.2)	6.3	(8.0)	(19.8)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
All other sources:									
Quantity.....	144,340	120,425	112,443	77,777	142,263	(22.1)	(16.6)	(6.6)	82.9
Value.....	107,243	88,779	78,771	56,365	76,707	(26.5)	(17.2)	(11.3)	36.1
Unit value.....	\$0.74	\$0.74	\$0.70	\$0.72	\$0.54	(5.7)	(0.8)	(5.0)	(25.6)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Nonsubject sources:									
Quantity.....	532,753	422,531	566,476	419,672	542,086	6.3	(20.7)	34.1	29.2
Value.....	401,483	309,338	408,701	307,241	309,257	1.8	(23.0)	32.1	0.7
Unit value.....	\$0.75	\$0.73	\$0.72	\$0.73	\$0.57	(4.3)	(2.9)	(1.5)	(22.1)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Total imports:									
Quantity.....	***	***	***	***	***	***	***	***	***
Value.....	***	***	***	***	***	***	***	***	***
Unit value.....	***	***	***	***	***	***	***	***	***
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***

Table continued.--

Table C-1--Continued
PET resin: Summary data concerning the U.S. market, 2012-14, January to September 2014, and January to September 2015
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

	Report data					Period changes			
	Calendar year			January to September		Calendar year			Jan-Sep
	2012	2013	2014	2014	2015	2012-14	2012-13	2013-14	2014-15
U.S. producers:									
Average capacity quantity.....	6,857,842	6,744,856	6,604,313	4,953,235	4,953,235	(3.7)	(1.6)	(2.1)	0.0
Production quantity.....	5,706,121	5,627,090	5,357,911	4,092,589	4,335,267	(6.1)	(1.4)	(4.8)	5.9
Capacity utilization (fn1).....	83.2	83.4	81.1	82.6	87.5	(2.1)	0.2	(2.3)	4.9
U.S. shipments:									
Quantity.....	5,278,504	5,217,493	5,126,103	3,984,793	4,128,863	(2.9)	(1.2)	(1.8)	3.6
Value.....	4,139,466	4,078,200	3,616,987	2,868,939	2,465,704	(12.6)	(1.5)	(11.3)	(14.1)
Unit value.....	\$0.78	\$0.78	\$0.71	\$0.72	\$0.60	(10.0)	(0.3)	(9.7)	(17.1)
Export shipments:									
Quantity.....	492,050	345,436	250,241	202,813	227,142	(49.1)	(29.8)	(27.6)	12.0
Value.....	358,590	250,490	168,672	140,309	127,300	(53.0)	(30.1)	(32.7)	(9.3)
Unit value.....	\$0.73	\$0.73	\$0.67	\$0.69	\$0.56	(7.5)	(0.5)	(7.0)	(19.0)
Ending inventory quantity.....	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1).....	***	***	***	***	***	***	***	***	***
Production workers.....	1,060	1,057	989	989	982	(6.7)	(0.3)	(6.4)	(0.7)
Hours worked (1,000s).....	1,683	1,681	1,581	1,236	1,219	(6.1)	(0.1)	(5.9)	(1.4)
Wages paid (\$1,000).....	41,036	41,064	40,652	33,384	33,026	(0.9)	0.1	(1.0)	(1.1)
Hourly wages (dollars).....	\$24.38	\$24.43	\$25.71	\$27.01	\$27.09	5.5	0.2	5.3	0.3
Productivity (pounds per hour).....	3,390.4	3,347.5	3,388.9	3,311.2	3,556.4	(0.0)	(1.3)	1.2	7.4
Unit labor costs.....	\$7.19	\$7.30	\$7.59	\$8.16	\$7.62	5.5	1.5	4.0	(6.6)
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).....	***	***	***	***	***	***	***	***	***

fn1.--Report data are in percent and period changes are in percentage points.
fn2.--Undefined.

APPENDIX D

PRICE DATA FROM 2012-14 INCLUDING PRELIMINARY-PHASE PRICING DATA FROM ***

As explained in part V, *** provided pricing data in the preliminary phase of these investigations, but did not submit an importers' questionnaire in the final phase of these investigations. The preliminary-phase questionnaire requested pricing data on the same pricing products as the final-phase questionnaire, but only through December 2014. Tables D-1 to D-2 summarize the pricing table using data from final-phase producers' and importers' questionnaires received, plus the pricing data from the preliminary-phase questionnaire of ***, from 2012 through 2014. *** submitted *** data for *** in *** and *** in ***.

Table D-1

PET resin: Weighted-average costs and quantities for commercial sales of imported product 1,¹ including selected preliminary-phase data, consumed in an end use, by quarters, January 2012-December 2014

* * * * *

Table D-2

PET resin: Weighted-average costs and quantities for commercial sales of imported product 3,¹ including selected preliminary-phase data, consumed in an end use, by quarters, January 2012-December 2014

* * * * *

APPENDIX E

NONSUBJECT COUNTRY PRICE DATA

Eight importers reported price and/or cost data for nonsubject countries Korea, Mexico, and/or Taiwan for products 1, 2, 3, and 4. Price data reported by these firms accounted for *** percent of U.S. imports from Korea, *** percent of U.S. imports from Mexico, and *** percent of U.S. imports from Taiwan over January 2012-September 2015. Cost data reported by these firms accounted for *** percent of U.S. imports from Korea over the same period (and a negligible share of imports from Mexico and Taiwan). These price and cost items and accompanying data are comparable to those presented in tables V- 3 to V-9. Price and quantity data for Korea, Mexico, and Taiwan are shown in tables E-1 to E-7 and in figure E-1 (with domestic and subject sources).¹

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Korea, Mexico, and Taiwan were lower than prices for U.S.-produced product in 16 instances and higher in 60 instances. In comparing nonsubject country pricing data with subject country pricing data, prices for product imported from Korea, Mexico, and Taiwan were lower than prices for product imported from subject countries in 76 instances and higher in 237 instances. A summary of margins of underselling and overselling is presented in table E-8.

At the hearing, M&G stated that it sold the PET resin imported from its Mexican affiliate at higher prices than the PET resin it produced in the United States.²

Table E-1

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of imported product 1¹, by quarters, January 2012-September 2015

* * * * *

Table E-2

PET resin: Weighted-average purchase costs and quantities imported product 1¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Table E-3

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of imported product 2¹, by quarters, January 2012-September 2015

* * * * *

¹ ***.

² Hearing transcript, p. 37 (Adlam).

Table E-4

PET resin: Weighted-average purchase costs and quantities imported product 2¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Table E-5

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of imported product 3¹, by quarters, January 2012-September 2015

* * * * *

Table E-6

PET resin: Weighted-average f.o.b. prices and quantities for commercial sales of imported product 4¹, by quarters, January 2012-September 2015

* * * * *

Table E-7

PET resin: Weighted-average purchase costs and quantities imported product 4¹ consumed in an end use, by quarters, January 2012-September 2015

* * * * *

Figure E-1

PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product, by quarters, January 2012-September 2015

* * * * *

Table E-8

PET resin: Summary of underselling/(overselling), by country, January 2012-September 2015

Comparison	Total number of comparisons	Nonsubject lower than the comparison source(s)		Nonsubject higher than the comparison source(s)	
		Number of quarters	Quantity (pounds)	Number of quarters	Quantity (pounds)
Nonsubject vs United States.--					
Korea vs. United States	14	8	***	6	***
Mexico vs. United States	55	5	***	50	***
Taiwan vs. United States	7	3	***	4	***
Nonsubject vs Subject.--					
Korea vs. Canada	14	5	***	9	***
Korea vs. China	14	7	***	7	***
Korea vs. India	11	6	***	5	***
Korea vs. Oman	13	3	***	10	***
Mexico vs. Canada	45	3	***	42	***
Mexico vs. China	33	5	***	28	***
Mexico vs. India	28	10	***	18	***
Mexico vs. Oman	51	10	***	41	***
Taiwan vs. Canada	7	2	***	5	***
Taiwan vs. China	7	2	***	5	***
Taiwan vs. India	7	3	***	4	***
Taiwan vs. Oman	7	4	***	3	***

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

APPENDIX F

LOST SALES AND LOST REVENUE ALLEGATIONS FROM THE PRELIMINARY PHASE OF THE INVESTIGATION

LOST SALES AND LOST REVENUE

Effective October 1, 2015, the Commission changed its rules associated with domestic industry provision of allegations of lost sales and lost revenue. The Commission rules were changed to ask petitioners to provide a list of purchasers where they lost sales or revenue, instead of transaction-specific incidents. This appendix contains the information from the preliminary phase related to lost sales and lost revenue allegations under the prior Commission rules.

The Commission requested U.S. producers of PET resin to report any instances of lost sales or revenue they experienced due to competition from imports of PET resin from Canada, China, India, or Oman since January 1, 2012.¹ Of the *** responding U.S. producers, *** reported that they had to either reduce prices or roll back announced price increases. *** reported that they lost sales. The *** lost sales allegations totaled \$*** million and involved *** million pounds of PET resin. The *** lost revenue allegations totaled \$*** million and involved *** million pounds of PET resin.² Staff contacted all the purchasers named in the allegations and a summary of the information obtained follows.

Purchasers responding to the lost sales allegations also were asked whether they shifted their purchases of PET resin from U.S. producers to suppliers of PET resin from Canada, China, India, or Oman since January 1, 2012. Three responding purchasers reported that they had shifted purchases of PET resin from U.S. producers to subject imports since January 1, 2012, while 11 stated that they did not. *** of the purchasers that did shift reported that ***. ***.

In addition, purchasers were asked whether U.S. producers reduced their prices in order to compete with suppliers of PET resin from Canada, China, India, or Oman. Ten purchasers reported that the U.S. producers had not reduced their prices in order to compete with the prices of subject imports since January 1, 2012. Among these, ***.

On the other hand, ***.

Table F-1
PET resin: U.S. producers' lost sales allegations

* * * * *

¹ In its postconference brief, Selenis stated that it had lost sales in the U.S. market due to low price quotes from U.S. producers. Postconference brief of Selenis, pp. 5-7.

² ***. When allegations specified a certain amount per a time period (e.g. per month, or per quarter) of less than a year, a period of 6 months was used to calculate the quantity and value totals.

Table F-2
PET resin: U.S. producers' lost revenue allegations

* * * * *

Additional Comments

***.

***.

***.

***.

***.

***.

***.

APPENDIX G

RESULTS OF OPERATIONS OF U.S. PRODUCERS – RAW MATERIALS FROM RELATED SOURCES REPORTED AT COST

Table G-1

**PET resin: Results of operations of U.S. producers - raw materials from related sources reported at cost,
2012-14, and January-September 2014-15**

* * * * *

APPENDIX H

QUESTIONNAIRE RESPONSES OF U.S. PRODUCERS REGARDING THE EFFECTS OF RAW MATERIAL PRICES ON REPORTED PROFITABILITY

U.S. producers' individual responses regarding the effects of increasing prices for MEG and PTA on reported profitability are presented below.

* * * * *

U.S. producers' individual responses regarding the effects of decreasing prices for MEG and PTA on reported profitability are presented below.

* * * * *

APPENDIX I

QUESTIONNAIRE RESPONSES OF U.S. PRODUCERS REGARDING ACTUAL AND ANTICIPATED NEGATIVE EFFECTS OF SUBJECT IMPORTS

U.S. producers' individual responses to questions regarding the actual and anticipated negative effects of subject imports are presented below.

* * * * *