

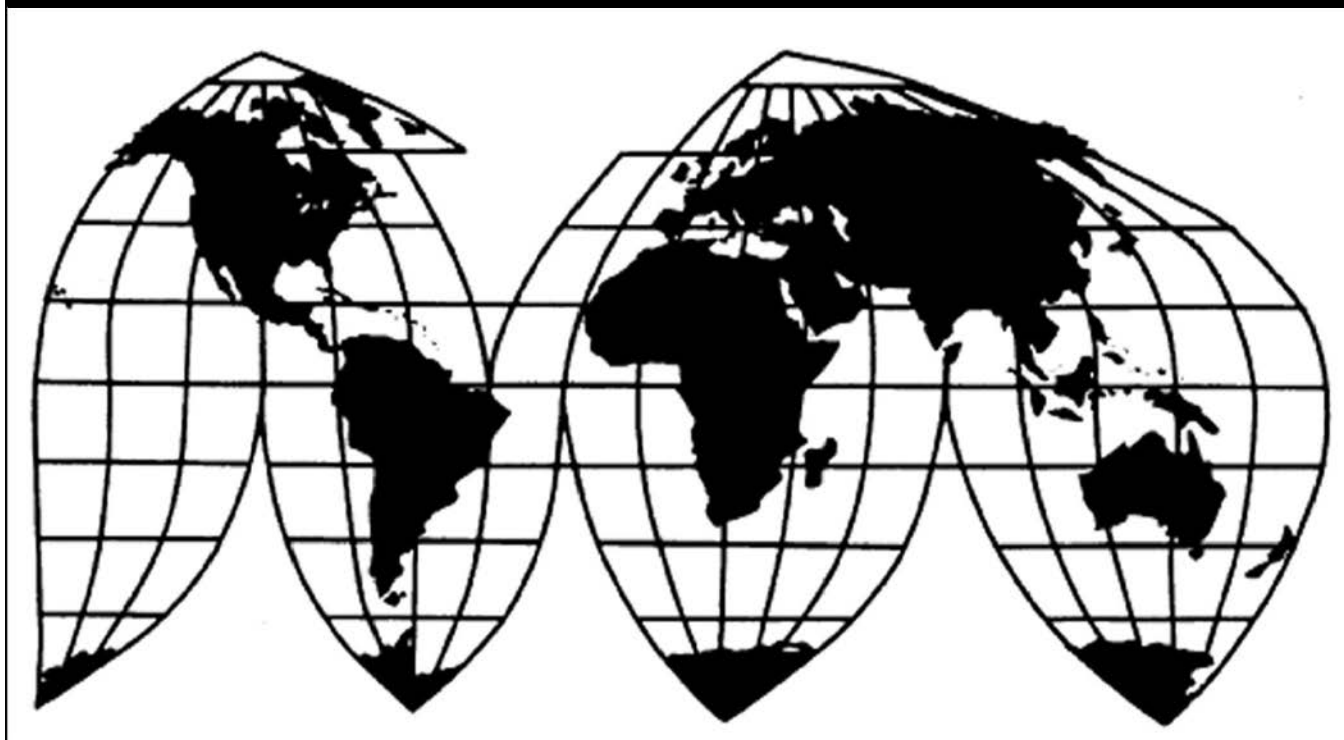
# **Certain Polyethylene Terephthalate Resin from Canada, China, India, and Oman**

Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)

**Publication 4531**

**May 2015**

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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## CONTENTS

|  | Page        |
|--|-------------|
| <b>Determinations</b> .....  | 1           |
| <b>Views of the Commission</b> .....                               | 3           |
| <b>Part I: Introduction</b> .....                                  | <b>I-1</b>  |
| Background.....  | I-1         |
| Statutory criteria and organization of the report .....            | I-1         |
| Statutory criteria .....   | I-1         |
| Organization of report.....  | I-2         |
| Market summary .....   | I-3         |
| Summary data and data sources.....                                 | I-3         |
| Previous and related investigations.....                           | I-3         |
| Nature and extent of alleged subsidies and sales at LTFV .....     | I-4         |
| Alleged subsidies .....  | I-4         |
| Alleged 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.....   | I-12        |
| <b>Part II: Conditions of competition in the U.S. market</b> ..... | <b>II-1</b> |
| U.S. market characteristics.....                                   | II-1        |
| Channels of distribution .....                                     | II-1        |
| Geographic distribution .....                                      | II-2        |
| Supply and demand considerations .....                             | II-2        |
| U.S. supply .....  | II-2        |
| U.S. demand .....  | II-8        |
| Substitutability issues.....                                       | II-11       |

## CONTENTS

|  | <b>Page</b>  |
|--|--------------|
| Lead times .....   | II-11        |
| Comparison of U.S.-produced and imported PET resin .....                         | II-11        |
| <b>Part III: U.S. producers' production, shipments, and employment .....</b>     | <b>III-1</b> |
| U.S. producers .....   | III-1        |
| U.S. production, capacity, and capacity utilization .....                        | III-3        |
| PET resin .....  | III-3        |
| U.S. producers' U.S. shipments and exports .....                                 | III-4        |
| U.S. producers' inventories .....  | III-5        |
| U.S. producers' imports and purchases .....                                      | III-5        |
| U.S. employment, wages, and productivity .....                                   | III-5        |
| <b>Part IV: U.S. imports, apparent U.S. consumption, and market shares .....</b> | <b>IV-1</b>  |
| U.S. importers .....   | IV-1         |
| U.S. imports .....   | IV-2         |
| Negligibility .....  | IV-6         |
| Cumulation considerations .....  | IV-6         |
| Presence in the market .....   | IV-8         |
| Geographical markets .....   | IV-8         |
| Apparent U.S. consumption .....  | IV-9         |
| U.S. market shares .....   | IV-9         |
| <b>Part V: Pricing data .....</b>  | <b>V-1</b>   |
| Factors affecting prices .....   | V-1          |
| Raw material costs .....   | V-1          |
| Transportation costs to the U.S. market .....                                    | V-2          |
| U.S. inland transportation costs .....   | V-2          |
| Pricing practices .....  | V-2          |
| Pricing methods .....  | V-2          |
| Sales terms and discounts .....  | V-3          |
| Price data .....   | V-4          |

## CONTENTS

|   | <b>Page</b>  |
|---|--------------|
| Price trends.....   | V-6          |
| Price comparisons .....   | V-6          |
| Lost sales and lost revenue .....   | V-7          |
| <b>Part VI: Financial experience of U.S. producers .....</b>                        | <b>VI-1</b>  |
| Introduction.....   | VI-1         |
| Operations on PET RESIN .....   | VI-1         |
| Variance analysis .....   | VI-2         |
| Capital expenditures, research and development expenses, and total assets.....      | VI-3         |
| Capital and investment.....   | VI-3         |
| <b>Part VII: Threat considerations and information on nonsubject countries.....</b> | <b>VII-1</b> |
| The industry in Canada.....   | VII-3        |
| The industry in China.....  | VII-4        |
| The industry in India.....  | VII-5        |
| The industry in Oman .....  | VII-6        |
| Combined data for the industries in the subject countries .....                     | VII-7        |
| U.S. inventories of imported merchandise .....                                      | VII-7        |
| U.S. importers' outstanding orders.....   | VII-8        |
| Antidumping or countervailing duty orders in third-country markets.....             | VII-8        |
| Information on nonsubject countries .....   | VII-8        |
| <b>Appendixes</b>   |              |
| A. <i>Federal Register</i> notices .....  | A-1          |
| B. List of conference witnesses .....   | B-1          |
| C. Summary data .....   | C-1          |
| D. Alternate apparent consumption & U.S. market shares.....                         | D-1          |

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





## UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)

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

### DETERMINATIONS

On the basis of the record<sup>1</sup> developed in the subject investigations, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of certain polyethylene terephthalate resin from Canada, China, India, and Oman, provided for in subheading 3907.60.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (“LTFV”), and that are allegedly subsidized by the governments of China, India, and Oman.<sup>2</sup>

### COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission’s rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in section 207.21 of the Commission’s rules, upon notice from the Department of Commerce (“Commerce”) of affirmative preliminary determinations in the investigations under sections 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under sections 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

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

<sup>2</sup> Commissioner F. Scott Kieff did not participate in these investigations.

## **BACKGROUND**

On March 10, 2015, DAK Americas, LLC, Charlotte, NC; M&G Chemicals, Houston, TX; and Nan Ya Plastics Corporation, America, Lake City, SC, filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV and subsidized imports of certain polyethylene terephthalate resin from China, India, and Oman and LTFV imports of certain polyethylene terephthalate resin from Canada. Accordingly, effective March 10, 2015, the Commission, pursuant to sections 703(a) and 733(a) of the Tariff Act of 1930 (19 U.S.C. §§ 1671b(a) and 1673b(a)), instituted countervailing duty investigation Nos. 701-TA-531-533 and antidumping duty investigation Nos. 731-TA-1270-1273 (Preliminary).

## Views of the Commission

Based on the record in the preliminary phase of these investigations, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of certain PET resin (“PET resin”) from Canada, China, India, and Oman that are allegedly sold in the United States at less than fair value and that are allegedly subsidized by the governments of China, India, and Oman.<sup>1</sup>

### I. The Legal Standard for Preliminary Determinations

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

### II. Background

DAK America, LLC (“DAK”), M&G Chemicals (“M&G”), and Nan Ya Plastics Corporation (“Nan Ya”) (collectively “Petitioners”), domestic producers of PET resin, filed the petitions in these investigations on March 10, 2015. Petitioners appeared at the staff conference and submitted postconference briefs.

The following respondents appeared at the staff conference and submitted postconference briefs: Selenis Canada, Inc. (“Selenis”), a producer and exporter of subject merchandise from Canada; China Chamber of Commerce of Metals, Minerals, and Chemical Importers and Exporters, Jiangsu Sanfangxiang Group Co., Ltd., Xiang Lu Dragon Group, Zhejiang Hengyi Group Co., Ltd., Far Eastern Industries (Shanghai) Ltd., China Resources (Holdings) Co., Ltd., and Zhejiang Wankai New Materials Co., Ltd. (collectively “Chinese Respondents”), producers of subject merchandise from China; Dhunseri Petrochem Ltd. (“Dhunseri”) and Reliance Industries Ltd. (“Reliance”) (collectively “Indian Respondents”), producers of subject merchandise from India; OCTAL SAOC – FZC (“OCTAL”), a producer and exporter of subject merchandise from Oman; and Ravago Holdings America, Inc., (“Ravago”), a U.S. importer of subject merchandise from each of the subject countries.

U.S. industry data are based on the questionnaire responses of four producers that are believed to account for all U.S. production of PET resin during the period of investigation (“POI”), which entails the period January 2012-December 2014.<sup>4</sup> U.S. import data are based on questionnaire responses for

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<sup>1</sup> Commissioner Kieff is recused from these investigations.

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

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

<sup>4</sup> Confidential Report (“CR”) at III-1; Public Report (“PR”) at III-1.

PET resin from Oman and official import statistics (HTS subheading 3907.60.0030), for PET resin from all other sources.<sup>5</sup> The Commission received usable questionnaire responses from 21 importers, representing \*\*\* percent of U.S. imports from Canada, China, India, and Oman between 2012 and 2014.<sup>6</sup>

### III. Domestic Like Product

#### A. In General

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the “domestic like product” and the “industry.”<sup>7</sup> Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Tariff Act”), defines the relevant domestic industry as the “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”<sup>8</sup> In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”<sup>9</sup>

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis.<sup>10</sup> No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.<sup>11</sup> The Commission looks for clear dividing lines among possible like products and disregards minor variations.<sup>12</sup> Although the Commission must accept Commerce’s determination as to the scope of the imported

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<sup>5</sup> The official statistics on imports from Oman do not include all subject product. PET resin from Oman is also imported under 3907.60.0070. CR at IV-3 n.3, PR at IV-2 n.3.

<sup>6</sup> CR at IV-1, PR at IV-1.

<sup>7</sup> 19 U.S.C. § 1677(4)(A).

<sup>8</sup> 19 U.S.C. § 1677(4)(A).

<sup>9</sup> 19 U.S.C. § 1677(10).

<sup>10</sup> See, e.g., *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. See *Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).

<sup>11</sup> See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

<sup>12</sup> See, e.g., *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in “such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not ‘like’ each other, nor should the definition of ‘like product’ be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.”).

merchandise that is allegedly subsidized and/or sold at less than fair value,<sup>13</sup> the Commission determines what domestic product is like the imported articles Commerce has identified.<sup>14</sup>

## **B. Product Description**

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

The merchandise covered by these investigations is polyethylene terephthalate (PET) resin having an intrinsic viscosity of at least 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.<sup>15</sup>

PET resin is generally 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.<sup>16</sup>

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<sup>13</sup> See, e.g., *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States*, 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

<sup>14</sup> *Hosiden Corp. v. Advanced Display Mfrs.*, 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Torrington*, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

<sup>15</sup> *Certain Polyethylene Terephthalate Resin From Canada, the People's Republic of China, India, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 80 Fed. Reg. 18376, April 6, 2015; *Certain Polyethylene Terephthalate Resin From the People's Republic of China, India, and the Sultanate of Oman: Initiation of Countervailing Duty Investigations*, 80 Fed. Reg. 18369, April 6, 2015.

<sup>16</sup> CR at I-3, PR at I-3.

### C. Arguments and Analysis

Petitioners contend that the Commission should define a single domestic like product that is coextensive with the scope definition.<sup>17</sup> For purposes of these preliminary determinations, Respondents do not object to Petitioners' domestic like product definition.<sup>18</sup>

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

*Physical Characteristics and Uses.* PET resin is a large-volume, commodity-grade thermoplastic polyester polymer. PET resin is sold primarily in bulk form as chips or pellets to downstream end users/converters. Converters use PET resin to manufacture, among other things, 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 bottles, water bottles, and other containers such as for juices, peanut butter, jams and jellies, salad dressings, cooking oils, household cleaners, and cosmetics.<sup>19</sup>

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 high temperatures in the filling process – in other words, it 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 into the container requires high temperatures in the filling process, analogous to a canning process.<sup>20</sup> 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.<sup>21</sup>

*Manufacturing Facilities, Production Processes and Employees.* Packaging-grade PET resin is produced by submitting amorphous ("AMPET") resin to a solid-state polymerization ("SSP") treatment.<sup>22</sup> In turn, firms manufacture AMPET resin from a controlled chemical reaction between the petro-based

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<sup>17</sup> Petitioners argue that all PET resin within the scope definition has the same basic physical characteristics with respect to form and chemistry. All PET resin has intrinsic viscosity ("IV") that falls within a range of 0.70-0.88 deciliters per gram. Viscosity, in general, refers to the resistance of a given material in liquid or molten form to shear or force under defined conditions. CR at I-11 n.13, PR at I-9 n.13. Petitioners contend that all PET resin produced in the United States is interchangeable, sold in the same channels of distribution, primarily to end users, produced in common manufacturing facilities, using similar production processes and the same production employees, is not perceived by customers to be substitutable with other products, and is sold at roughly comparable prices. Petitioners further argue that defining the domestic like product coextensively with the scope of the investigations would be consistent with the Commission's approach in the prior PET resin investigations, in which the Commission found that PET resin comprised a single domestic like product coextensive with the scope of those investigations (as reflected in the tariff classification description). Petitioners' Postconference Brief at 4-5.

<sup>18</sup> Tr. at 159 (Mendoza).

<sup>19</sup> CR at I-11, PR at I-9.

<sup>20</sup> CR at I-12 n.15, PR at I-9 n.15.

<sup>21</sup> CR at I-12, PR at I-10.

<sup>22</sup> CR at I-15, PR at I-11. Domestic PET resin producers have both the melt-phase polymerization capability to produce AMPET and the solid-state polymerization capability to produce PET resin.

chemical terephthalic acid (“TPA”)<sup>23</sup> and the natural gas-based chemical mono ethylene glycol (“MEG”). 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. 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.<sup>24</sup> U.S. producers reported manufacturing PET resin using common manufacturing facilities, production workers, and production processes.<sup>25</sup> 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.<sup>26</sup>

*Channels of Distribution.* During the POI, domestic producers sold the large majority of PET resin (approximately \*\*\* percent) to end users.<sup>27</sup>

*Interchangeability.* U.S. producers reported that PET resin produced in the United States is interchangeable.<sup>28</sup> Customers may specify an IV (within the range identified in the scope) and other minor variations (e.g., the inclusion of certain additives in the manufacturing process) to meet their needs.<sup>29</sup> Domestic producers reported that \*\*\*.<sup>30</sup> Although there is limited information on the record of these investigations regarding the interchangeability of domestically produced PET resin for cold-fill application and domestically produced PET resin for hot-fill applications, Petitioners stated that customers are not divided between hot-fill and cold-fill applications, and the qualification process to supply hot-fill applications is not more strenuous than for other applications.<sup>31</sup>

*Producer and Customer Perceptions.* Petitioners assert that producers and customers view PET resin as a single product category.<sup>32</sup> There is no contrary evidence on the record.

*Price.* PET resin sold in the U.S. market is of similar chemical composition. Petitioners state that domestically produced PET resin is sold at roughly comparably prices, and there is no evidence on the record of these investigations that there are significant price variations for different PET resin

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<sup>23</sup> There are several grades of TPA. The best quality TPA is referred to as purified terephthalic acid (“PTA”), and this is the quality of TPA that is sold on the merchant market to PET resin producers. PET resin lines can use other qualities of TPA other than PTA; however, if non-purified forms of TPA are used in PET resin manufacturing, the PET resin lines must compensate for the lower quality raw material input through further in-line chemical processing. CR at I-14 n.22, PR at I-11.

<sup>24</sup> CR at I-16, PR at I-11-12.

<sup>25</sup> See U.S. Prod. QRs at II-3a, II-3e.

<sup>26</sup> CR at I-12, PR at I-10.

<sup>27</sup> CR/PR at Table II-1.

<sup>28</sup> See U.S. Prod. QRs at IV-18; Tr. at 42 (Cannon).

<sup>29</sup> Tr. at 26 (Freeman).

<sup>30</sup> See U.S. Prod. QRs at IV-19; Tr. at 42 (Cannon).

<sup>31</sup> Petitioners’ Postconference Brief at 13. We observe that the large majority of market participants found PET resin from all sources to be “always” or “frequently” interchangeable, and therefore did not appear to specifically distinguish PET resin for hot-fill applications from PET resin for cold-fill applications. CR/PR at Table II-4. As explained below, the percentage of PET resin used for hot-fill applications is much higher for domestic production than it is for subject imports.

<sup>32</sup> See U.S. Prod. QRs at IV-19; Tr. at 27-28 (Freeman).

products.<sup>33</sup> The pricing product data confirm that the prices for the four pricing products that are domestically produced are roughly comparable.<sup>34</sup>

*Conclusion.* PET resin is produced in the United States using the same basic chemistry and raw materials, manufacturing facilities, production processes, and employees, and has the same end uses. It is sold through the same channels of distribution, is largely interchangeable, and is sold at roughly comparable prices. In view of the foregoing, and the fact that no party has argued for a different result, we define a single domestic like product that is coextensive with the scope of these investigations.

#### **IV. Domestic Industry**

The domestic industry is defined as the domestic “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”<sup>35</sup> 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.

##### **A. Related Parties**

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

Petitioners argue that the domestic industry consists of all U.S. producers of PET resin.<sup>38</sup> Respondents do not disagree with this definition of the domestic industry. While one domestic producer is a related party, we conclude that appropriate circumstances do not exist to exclude it from the

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<sup>33</sup> Petitioners’ Postconference Brief at 5.

<sup>34</sup> CR/PR at Tables V-3-V-10.

<sup>35</sup> 19 U.S.C. § 1677(4)(A).

<sup>36</sup> See *Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int’l Trade 1992), *aff’d without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int’l Trade 1989), *aff’d mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int’l Trade 1987).

<sup>37</sup> The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

(1) the percentage of domestic production attributable to the importing producer;

(2) the reason the U.S. producer has decided to import the product subject to investigation, *i.e.*, 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; and (3) the position of the related producer vis-à-vis the rest of the industry, *i.e.*, whether inclusion or exclusion of the related party will skew the data for the rest of the industry. See, *e.g.*, *Torrington Co. v. United States*, 790 F. Supp. at 1168.

<sup>38</sup> Petitioners’ Postconference Brief at 6.



domestic industry.<sup>39</sup> Consequently, for purposes of the preliminary phase of these investigations, we define the domestic industry as all U.S. producers of PET resin.

## V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.<sup>40</sup> During March 2013 to February 2014, the 12-month period prior to the filing of the petitions, imports from each subject country accounted for greater than 3 percent of total imports of PET resin. Specifically, imports from Canada accounted for 22.1 percent, those from China accounted for 5.6 percent, those from India accounted for 32.3 percent, and those from Oman accounted for 5.1 percent of total imports of PET resin.<sup>41</sup> We therefore find that imports from each of the subject countries are not negligible.

## VI. Cumulation

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

- (1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.<sup>42</sup>

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<sup>39</sup> One domestic producer, \*\*\*, is subject to possible exclusion under the related parties provision because it imported \*\*\* pounds of subject merchandise from India in 2013. CR/PR at Table III-7. We find that appropriate circumstances do not exist to exclude \*\*\* from the domestic industry. \*\*\* is a Petitioner, and its principal interest is in domestic production. Its \*\*\* of subject merchandise from India in 2013 were less than \*\*\* percent of its U.S. production for that year. CR/PR at Table III-7.

<sup>40</sup> 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)).

<sup>41</sup> CR at IV-7, PR at IV-6.

<sup>42</sup> *See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-80 (Final), USITC Pub. 1845 (May 1986), *aff'd*, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int'l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

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.

#### **A. Arguments of the Parties**

Petitioners contend that imports from all subject countries should be cumulated, as petitions were filed on the same day and there is a reasonable overlap of competition among subject imports from each country.<sup>43</sup> Respondents from India argue that the Commission should not cumulate subject imports from India with imports from the other subject countries.<sup>44</sup> The Indian respondents claim that there is limited overlap in production and customers between subject imports from India and the domestic like product as well as other sources. Ravago contends that subject imports from Canada should not be cumulated with the other subject countries on the basis of its unique geographical location in the North American market, as well as the fact that it is the only subject country that can fill orders for certain customers in the United States that require delivery of PET resin by rail.<sup>45</sup>

#### **B. Analysis**

The threshold requirement for cumulation is satisfied because Petitioners filed the antidumping duty and countervailing duty petitions with respect to all subject countries on the same day, March 10, 2015.<sup>46</sup> As discussed below, we find a reasonable overlap of competition between and among subject imports from Canada, China, India, and Oman and the domestic like product.<sup>47</sup>

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<sup>43</sup> Petitioners' Postconference Brief at 17-20.

<sup>44</sup> Dhunseri's Postconference Brief at 18; Reliance's Postconference Brief at 22.

<sup>45</sup> Ravago's Postconference Brief at 4-11.

<sup>46</sup> None of the statutory exceptions to cumulation is applicable.

<sup>47</sup> Reliance argues that the WTO Dispute Settlement Body (DSB) action in *United States – Countervailing Duty Investigation on Hot-Rolled Steel Products from India* precludes the Commission from cumulating non-subsidized allegedly dumped subject imports from Canada with subject imports from India for purposes of the countervailing duty determination on subject imports from India. Reliance's Postconference Brief at 27 citing Appellate Body Report, *US – Countervailing Measures on Certain Hot-Rolled Carbon Steel Flat Products from India*, WT/DS436/AB/R (Dec. 8, 2014) (adopted Dec. 19, 2014). We observe that, even after adoption, DSB reports only bind Members with respect to particular cases or matters subject to the dispute and Members are provided a reasonable period of time to implement the findings and recommendations of the panel or Appellate Body in that dispute. WTO Agreement on Dispute Settlement Understanding, Articles 3, 17, 19, 21, 22. Given that the United States is currently in the process of addressing steps to render the particular *Hot-Rolled Steel* proceeding not inconsistent with the DSB's findings, we do not believe that it is appropriate to take action based solely on the Appellate Body report in that dispute. Under the circumstances, we follow our practice of "cross-cumulating" imports subject to the countervailing duty investigations with imports subject to the antidumping duty investigations. See *Bingham & Taylor v. United States*, 815 F.2d 982 (Fed. Cir. 1987); see also, e.g., *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); *Circular Welded Carbon-Quality Steel Pipe from India, Oman, the United Arab Emirates, and Vietnam*, Inv. Nos. 701-TA-482 to (Continued...)

*Fungibility.* The record in the preliminary phase of these investigations indicates that PET resin is fungible, regardless of source. \*\*\* responding U.S. producers and the large majority of responding importers reported that product from all sources was “always” or “frequently” interchangeable.<sup>48</sup> Moreover, \*\*\* responding U.S. producers and the large majority of responding importers reported that differences other than price were only “sometimes” or “never” significant to purchasing decisions.<sup>49</sup> Although there may be some distinctions between PET resin used for cold-fill applications and PET resin used for hot-fill applications, the record of the preliminary phase of these investigations indicates a sufficient degree of fungibility between and among subject imports from each subject country and the domestic like product to satisfy the “reasonable overlap” standard.<sup>50</sup>

*Channels of Distribution.* Throughout the POI, the large majority of domestically produced product and most subject imports were sold to end users.<sup>51</sup>

*Geographic Overlap.* All U.S. producers reported selling PET resin to all regions in the contiguous United States.<sup>52</sup> Moreover, all geographic markets in the contiguous United States were served by importers of subject merchandise from each of the subject countries.<sup>53</sup>

*Simultaneous Presence in Market.* Subject imports from all countries were present in the U.S. market every month during the period of investigation.<sup>54</sup>

In sum, because the relevant antidumping duty and countervailing duty petitions were filed on the same day, and the record indicates that there is a reasonable overlap of competition between and among subject imports and the domestic like product, we analyze subject imports from Canada, China,

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(...Continued)

484 (Final), USITC Pub. 4362 at 12 n.59 (Dec. 2012); *Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Final), USITC Pub. 3509 at 29-31 (May 2009).

<sup>48</sup> CR/PR at Table II-4.

<sup>49</sup> CR/PR at Table II-5.

<sup>50</sup> Although Indian Respondents argue that subject imports from India do not compete in all segments of the PET resin market, the domestic like product and imports from each of the subject countries are present in the cold-fill segment of the market, as confirmed by the \*\*\*. CR/PR at Tables \*\*\*. In our view, competition in this large segment of the market shows that there is sufficient fungibility to support a finding of a reasonable overlap of competition. There is limited information on the record of the preliminary phase of these investigations concerning the ability of PET resin producers in Canada to service larger Tier One customers in bulk quantities by rail, and whether that ability limits competition between subject imports from Canada and subject imports from China, India, and Oman, as Ravago contends. Ravago’s Postconference Brief at 5-6. Furthermore, the record does not indicate whether there are standard, industry accepted definitions for “Tier One, Tier Two, and Tier Three” customers, or the degree to which these tiers are meaningful distinctions of PET resin purchasers.

<sup>51</sup> CR/PR at Table II-1.

<sup>52</sup> CR/PR at Table II-2.

<sup>53</sup> CR/PR at Table II-2. There was some regional emphasis regarding importers’ sales of subject merchandise, with importers of PET resin from Canada more likely to report sales in the eastern United States, importers of PET resin from China more likely to report sales in the Pacific, and importers of PET resin from India more likely to report sales in the southeast. CR at II-3, PR at II-2. Nevertheless, nothing in the record supports Ravago’s position that Canada’s “unique geographical location” leads to subject imports from Canada being available in different U.S. regions than imports from the other subject countries.

<sup>54</sup> CR at IV-10, PR at IV-8; CR/PR at Table IV-4.

India, and Oman on a cumulated basis for our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

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

### A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.<sup>55</sup> 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.<sup>56</sup> The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”<sup>57</sup> In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>58</sup> No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>59</sup>

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is “materially injured by reason of” unfairly traded imports,<sup>60</sup> it does not define the phrase “by reason of,” indicating that this aspect of the injury analysis is left to the Commission’s reasonable exercise of its discretion.<sup>61</sup> In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the “by reason of” standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.<sup>62</sup>

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<sup>55</sup> 19 U.S.C. §§ 1671b(a), 1673b(a).

<sup>56</sup> 19 U.S.C. § 1677(7)(B). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each {such} factor ... {a}nd explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B).

<sup>57</sup> 19 U.S.C. § 1677(7)(A).

<sup>58</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>59</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>60</sup> 19 U.S.C. §§ 1671b(a), 1673b(a).

<sup>61</sup> *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) (“{T}he statute does not ‘compel the commissioners’ to employ {a particular methodology}.”), *aff’d* 944 F. Supp. 943, 951 (Ct. Int’l Trade 1996).

<sup>62</sup> The Federal Circuit, in addressing the causation standard of the statute, has observed that “{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was re-affirmed in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), in which the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred “by reason of” the LTFV imports, not by reason of a minimal or tangential contribution to material harm (Continued...)”

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.<sup>63</sup> In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.<sup>64</sup> Nor does the “by reason of” standard require that unfairly traded imports be the “principal” cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.<sup>65</sup> It is clear that the existence of injury caused by other factors does not compel a negative determination.<sup>66</sup>

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(...Continued)

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).

<sup>63</sup> SAA, H.R. Rep. 103-316, Vol. I at 851-52 (1994) (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry”); accord *Mittal Steel*, 542 F.3d at 877.

<sup>64</sup> SAA at 851-52 (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports.”); *Taiwan Semiconductor Industry Ass’n*, 266 F.3d at 1345. (“{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.” (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int’l Trade 2002) (“{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury” or make “bright-line distinctions” between the effects of subject imports and other causes.); see also *Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that “{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e.*, it is not an ‘other causal factor,’ then there is nothing to further examine regarding attribution to injury”), citing *Gerald Metals*, 132 F.3d at 722 (the statute “does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

<sup>65</sup> S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

<sup>66</sup> See *Nippon*, 345 F.3d at 1381 (“an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the ‘dumping’ need not be the sole or principal cause of injury.”).

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.”<sup>67</sup> <sup>68</sup> Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”<sup>69</sup>

The Federal Circuit’s decisions in *Gerald Metals*, *Bratsk*, and *Mittal Steel* all involved cases in which the relevant “other factor” was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit’s guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.<sup>70</sup> 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

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<sup>67</sup> *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.

<sup>68</sup> Vice Chairman Pinkert does not join this paragraph or the following three paragraphs. He points out that the Federal Circuit, in *Bratsk*, 444 F.3d 1369, and *Mittal Steel*, held that the Commission is *required*, in certain circumstances when considering present material injury, to undertake a particular kind of analysis of non-subject imports, albeit without reliance upon presumptions or rigid formulas. *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.

<sup>69</sup> *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also *Mittal Steel*, 542 F.3d at 879 (“*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was ‘by reason’ of subject imports.”).

<sup>70</sup> *Mittal Steel*, 542 F.3d at 875-79.

attribute injury from nonsubject imports or other factors to subject imports.<sup>71</sup> 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.<sup>72</sup>

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.<sup>73</sup> Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.<sup>74</sup>

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

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

### **1. Demand Conditions**

U.S. demand for PET resin depends on the demand for U.S.-produced downstream products. Reported end uses for PET resin include bottles of various types (water, carbonated beverages, and heatset), sheets, carpets, strapping, and thermoformed plastic containers.<sup>75</sup> 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 than can be filled with hot liquids).<sup>76</sup>

The large majority of both U.S. producers and importers reported an increase in U.S. demand for PET resin during the POI.<sup>77</sup> Petitioners reported that while demand for certain end uses such as bottles for carbonated beverages has declined somewhat, demand for other uses

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<sup>71</sup> *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).

<sup>72</sup> 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 final phase 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 final phase investigations in which there are substantial levels of nonsubject imports.

<sup>73</sup> We provide in our respective discussions of volume, price effects, and impact a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

<sup>74</sup> *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp.*, 458 F.3d at 1350, citing *U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

<sup>75</sup> CR at II-14, PR at II-8.

<sup>76</sup> CR at II-14, PR at II-8.

<sup>77</sup> CR/PR at Table II-3.

such as water bottles, packaging materials, and carpets has increased, leading to a modest increase in demand for PET resin over the POI.<sup>78</sup>

As measured by quantity, apparent U.S. consumption was \*\*\* pounds in 2012 and 2013, and \*\*\* pounds in 2014.<sup>79</sup>

## 2. Supply Conditions

During the period of investigation, the U.S. market was supplied by the domestic industry, subject imports, and nonsubject imports. The domestic industry was the largest supplier to the U.S. market, and its market share fell steadily over the period.<sup>80</sup> Cumulated subject import market share increased steadily,<sup>81</sup> while nonsubject market share showed little change from 2012 to 2014.<sup>82</sup>

Each of the four U.S. producers of PET resin is affiliated with a foreign producer of PET resin.<sup>83</sup> U.S. capacity to produce PET resin declined from \*\*\* pounds in 2012 to \*\*\* pounds in 2014.<sup>84</sup> Petitioners argue that capacity declined over the POI because U.S. producers were forced to shutter facilities due to the effects of subject imports.<sup>85</sup> Respondents argue that these producers have closed older, less efficient facilities and have replaced them, or are about to replace them, with state-of-the-art facilities to meet the growing demand for PET resin.<sup>86</sup> M&G has started construction on a new plant in Corpus Christi, Texas, which is expected to

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<sup>78</sup> Tr. at 63-64 (Adlam and Cullen).

<sup>79</sup> CR/PR at Table IV-5.

<sup>80</sup> As measured by quantity, U.S. producers' market share fell from \*\*\* percent in 2012 to \*\*\* percent in 2013, and then fell to \*\*\* percent in 2014. CR/PR at Table IV-6.

<sup>81</sup> As measured by quantity, cumulated subject import market share increased from \*\*\* percent in 2012 to \*\*\* percent in 2013, and increased further to \*\*\* percent in 2014. CR/PR at Table IV-6.

<sup>82</sup> As measured by quantity, nonsubject import market share fell from \*\*\* percent in 2012 to \*\*\* percent in 2013, and then increased to \*\*\* percent in 2014. CR/PR at Table IV-6.

<sup>83</sup> CR/PR at Table III-1 nn.1-4. DAK is partially owned by Mexican companies Grupo Petrotemex, S.A. de C.V. and DAK Americas Exterior, S.L. Sociedad Unipersona. DAK Americas is also related to two foreign producers of PET resin, DAK Americas Argentina, S.A. (Argentina) and DAK Resinas Americas Mexico S.A. de C.V. (Mexico). Indorama is wholly owned by Indorama Ventures PCL, Thailand. Indorama is also related to Indorama Polymers Public Company Limited / AsiaPet (Thailand) Limited, Indorama Polyester Industries PCL, UAB Orion Global Pet, Indorama Ventures Europe B.V., Guangdong IVL PET Polymer Co., Ltd., PT Indorama Ventures Indonesia, Indorama Ventures Poland Sp. z.o.o., Auriga Polymers Inc., Indorama Ventures Polymers Mexico, S. de R.L. de C.V., PT. Indorama Polypet Indonesia, Indorama PET (Nigeria) Limited, and Indorama Ventures Adana PET Sanayi Anonim Sirketi. M&G is related to foreign producers of PET resin, M&G Polimeros Mexico S.A. de CV (Mexico) and M&G Polimeros Brazil S.A. (Brazil). Nan Ya is wholly owned by Nan Ya Plastics Corporation (Taiwan), which is also a producer of PET resin. Additionally, Nan Ya is related to a Vietnamese producer of PET resin, Formosa Industries Corp.

<sup>84</sup> CR/PR at Table C-1.

<sup>85</sup> Petitioners' Postconference Brief at 9; Tr. at 20 (McNaull) (closure of DAK Cape Fear facility).

<sup>86</sup> Chinese Respondents' Postconference Brief at 5-8; Dhunseri's Postconference Brief at 6-10; Reliance's Postconference Brief at 3-5; OCTAL's Postconference Brief at 5-6; Ravago's Postconference Brief at 13-15.



become operational in mid-2016, and is expected to be the world's largest plant for integrated production of PET resin along with PTA, which is one of the major input materials for PET resin production.<sup>87</sup>

Three of the four U.S. producers reported no supply constraints.<sup>88</sup> U.S. producer \*\*\* reported that it had faced supply constraints \*\*\*. It described these constraints as resulting from a shortage in the U.S. supply of PTA due to supply problems at the largest U.S. supplier of PTA.<sup>89</sup>

Mexico was the largest source of nonsubject imports during the POI, followed by Taiwan, Indonesia, and Pakistan.<sup>90</sup> Respondents generally described imports from Mexico as controlled by U.S. producers (due to cross-ownership), and as having grown over the POI.<sup>91</sup> Domestic producer M&G described its U.S. sales of PET resin from Mexico as sold at prices comparable to those of U.S. producers, and added that its imports from its Mexican plant would soon be replaced by production from its new plant under construction in Texas.<sup>92</sup>

### 3. Substitutability

The record in the preliminary phase of these investigations suggests a high degree of substitutability between domestically produced PET resin and PET resin imports from subject sources.<sup>93</sup> As described above, the large majority of responding U.S. producers and importers reported that product from all sources was either "always" or "frequently" interchangeable, and that differences other than price were "sometimes" or "never" significant in purchasing decisions.<sup>94</sup>

The parties have nevertheless presented conflicting assertions concerning the degree of substitutability between the domestic like product and the subject imports. Petitioners contend that PET resin is a highly substitutable product that competes on the basis of price.<sup>95</sup> Respondents claim that several factors limit substitutability. First, Respondents maintain that the PET resin market is segmented by geography, and that the majority of the supply of PET resin from sources outside North America is sold on the west coast of the United States, where the domestic industry has fewer logistical advantages.<sup>96</sup> Second, Respondents argue that because of the high cost of transporting empty bottles and containers, manufacturers and converters must be located near the bottling company or other end user that is filling the container, and that this gives a distinct advantage in supplying large customers to domestic

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<sup>87</sup> CR at III-3, PR at III-3. Indorama built a new facility in Decatur, Alabama in 2010, and has announced plans to double the capacity of the facility by the end of 2015. Tr. at 92 (Behm).

<sup>88</sup> CR at II-6, PR at II-3.

<sup>89</sup> CR at II-6 and II-13, PR at II-3 and II-8.

<sup>90</sup> CR at II-12, PR at II-7.

<sup>91</sup> Tr. at 92 (Behm) and 122 (Rajvanshi).

<sup>92</sup> Tr. at 30, 40, and 79 (Adlam).

<sup>93</sup> CR at II-18, PR at II-11.

<sup>94</sup> CR/PR at Tables II-4 & II-6.

<sup>95</sup> Petitioners' Postconference Brief at 11-12.

<sup>96</sup> Chinese Respondents' Postconference Brief at 9-11.

producers which have plants located close to the converters, or which are able to ship to those converters by rail in significant quantities.<sup>97</sup> Third, they argue that the U.S. PET resin market is segmented by end use, and that subject imports have a much lower concentration in the hot-fill segment than the cold-fill segment.<sup>98</sup> In any final phase of these investigations, we will examine further whether distinctions in geographic markets, transportation, and end use applications limit competition between subject imports and the domestic like product.<sup>99</sup>

#### 4. Other Conditions

The production of PET resin is capital intensive. Producers seek to maintain high operating rates to maximize efficiency.<sup>100</sup>

Two raw materials, PTA and MEG, historically account for over 75 percent of the cost of producing PET resin.<sup>101</sup> As a share of the cost of goods sold (“COGS”), raw material costs ranged from \*\*\* percent to \*\*\* percent during the POI.<sup>102</sup> Prices of both PTA and MEG declined significantly during the POI.<sup>103</sup> PTA prices fell by 28.4 percent, and MEG prices fell by 18.1 percent.<sup>104</sup> The bulk of this decline occurred after August 2014, when global oil prices began to fall.<sup>105</sup> Petitioners acknowledge that U.S. PTA prices are higher than global PTA prices, but add that with transportation costs, it was less expensive for U.S. producers to purchase PTA domestically than to import it during the POI.<sup>106</sup>

Petitioners describe PET resin pricing as being based on raw material cost per pound plus an add-on, and that price competition focuses on the amount of the add-on.<sup>107</sup> Most domestic producers reported that at least \*\*\* percent of their sales of PET resin in 2014 were under long-term contracts, except \*\*\*, which reported that \*\*\* were spot sales.<sup>108</sup> Petitioners assert that domestic producers now have formulas in long-term contracts that account for monthly changes in raw material costs and, as a result, they can rapidly pass along cost movements in a timely manner.<sup>109</sup> Respondents argue that all of the domestic producers use

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<sup>97</sup> Chinese Respondents’ Postconference Brief at 9-11; Ravago’s Postconference Brief at 13-15.

<sup>98</sup> Chinese Respondents’ Postconference Brief at 11-12; Dhunseri’s Postconference Brief at 13-16; Reliance’s Postconference Brief at 7-8.

<sup>99</sup> In any final phase of these investigations, we will explore further the degree to which purchasers of PET resin require delivery by rail and their reasons for requiring such delivery.

<sup>100</sup> Tr. at 20 (McNaull).

<sup>101</sup> CR at V-1, PR at V-1.

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

<sup>103</sup> CR/PR at Figure V-1.

<sup>104</sup> CR at V-1, PR at V-1.

<sup>105</sup> CR at V-1, PR at V-1. From January 2012 to August 2014, PTA prices had fallen only 3.7 percent and MEG prices had fallen only 4.5 percent.

<sup>106</sup> Tr. at 61-62 (McNaull).

<sup>107</sup> Tr. at 36 (Cullen).

<sup>108</sup> CR at V-6, PR at V-3.

<sup>109</sup> Petitioners’ Postconference Brief at 15-16. Domestic producers were evenly divided on whether their short-term and annual contracts allowed price renegotiation or contained meet-or-release (Continued...)

some form of formula-based pricing that passes changes in raw material prices through to purchasers, and that this has allowed some customers to insist on immediate PET resin price reductions based on publicly quoted sources even before the PET producer has actually benefitted by producing the PET resin using the raw materials purchased at the new lower price.<sup>110</sup>

### C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”<sup>111</sup>

As measured by quantity, apparent U.S. consumption remained flat at \*\*\* pounds in 2012 and 2013, before increasing to \*\*\* pounds in 2014, a \*\*\* percent increase over the POI.<sup>112</sup> Notwithstanding this, during the POI the volume of cumulated subject imports increased steadily; it was \*\*\* percent higher in 2014 than in 2012.<sup>113</sup> Cumulated subject import market share also increased. As measured by quantity, cumulated subject import market share increased from \*\*\* percent in 2012 to \*\*\* percent in 2013, and to \*\*\* percent in 2014, an increase of \*\*\* percentage points over the POI.<sup>114</sup> Cumulated subject imports increased their market share primarily at the expense of the domestic industry. As measured by quantity, U.S. producers’ market share declined by \*\*\* percentage points during the POI, falling from \*\*\* percent in 2012 to \*\*\* percent in 2013 and then to \*\*\* percent in 2014.<sup>115</sup>

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

### D. Price Effects of the Subject Imports

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

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(...Continued)

provisions. For long-term contracts, however, three producers agreed that contracts do allow price renegotiation and do have meet-or-release provisions. CR at V-5, PR at V-3.

<sup>110</sup> Chinese Respondents’ Postconference Brief at 8-9; Dhunseri’s Postconference Brief at 10-12; Reliance’s Postconference Brief at 9; OCTAL’s Postconference Brief at 6-7.

<sup>111</sup> 19 U.S.C. § 1677(7)(C)(i).

<sup>112</sup> CR/PR at Table IV-5.

<sup>113</sup> CR/PR at Table C-1. The quantity of subject imports rose from \*\*\* pounds in 2012 to \*\*\* pounds in 2013 and to \*\*\* pounds in 2014. CR/PR at Table IV-2. We have relied principally on official import data to examine PET resin imports from sources other than Oman. Due to concerns Selenis asserted regarding the accuracy of official import statistics for PET resin from Canada, we also examined the questionnaire data for PET resin from Canada and observe that the volume trends are the same. CR/PR at Appendix D-1. In any final phase of these investigations, we will examine further what data are most appropriate for subject imports from Canada.

<sup>114</sup> CR/PR at Table C-1.

<sup>115</sup> CR/PR at Table C-1.

(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.<sup>116</sup>

As stated above, the current record indicates a high degree of substitutability between subject imports and the domestic like product.<sup>117</sup> Moreover, all domestic producers and the large majority of importers described differences other than price between subject imports and domestically produced PET resin as being either “never” or only “sometimes” important.<sup>118</sup> We therefore find that price is an important consideration in purchasing decisions.

The Commission collected quarterly pricing data from U.S. producers and importers for total quantity and f.o.b. value on four PET resin products shipped to unrelated U.S. customers over the POI.<sup>119</sup> Four U.S. producers and 16 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.<sup>120</sup> Subject imports undersold the domestic like product in 83 of 129 possible quarterly comparisons and oversold it in the remaining 46 comparisons.<sup>121</sup> The quantity of subject imports that undersold the domestic like product during the POI was 798 million pounds, whereas the quantity of subject imports that oversold the domestic like product was 321 million pounds.<sup>122</sup> For purposes of our preliminary determinations, given the high frequency of underselling and the fact that price is an important consideration in purchasing decisions, we find the underselling to be significant.

We have further examined whether subject imports depressed prices for the domestic like product. According to questionnaire data, the domestic industry’s weighted-average prices for all four pricing products decreased significantly between the first quarter of 2012 and the fourth quarter of

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<sup>116</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>117</sup> CR at II-18, PR at II-11.

<sup>118</sup> CR/PR at Table II-5.

<sup>119</sup> The pricing products were as follows: Product 1 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in water bottle applications; Product 2 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.72 IV to 0.84 IV, in the solid stated form. This PET resin product is typically used in sheet and strapping; Product 3 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.78 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in carbonated soft drink applications; and Product 4 – PET resin, being either clear homo- or co-polymer, and having an intrinsic viscosity of 0.75 IV to 0.86 IV, in the solid stated form. This PET resin product is typically used in heat set or hot fill applications; food, household, and other products.

<sup>120</sup> CR at V-8, PR at V-4. Pricing data reported by these firms accounted for approximately \*\*\* percent of U.S. producers’ U.S. shipments, \*\*\* percent of subject imports from Canada, \*\*\* percent of subject imports from China, \*\*\* percent of subject imports from India, and \*\*\* percent of subject imports from Oman. CR at V-8; PR at V-4.

<sup>121</sup> Subject imports’ margins of underselling ranged from 0.1 to 35.7 percent, with an average margin of 6.2 percent during the POI. CR/PR at Table V-12. Subject imports’ margins of overselling ranged from 0.1 to 26.3 percent, with an average margin of 4.5 percent during the POI. CR/PR at Table V-12.

<sup>122</sup> CR/PR at Table V-12.

2014.<sup>123</sup> Prices of U.S. shipments of PET resin from each of the subject countries also declined during the POI to an extent comparable to that of domestically produced PET resin.<sup>124</sup> The domestic industry's price declines occurred despite the steady modest growth in apparent U.S. consumption that occurred during the POI. In view of price competition from the subject imports, which predominantly undersold U.S. prices and gained market share, we find for purposes of the preliminary phase of these investigations that subject imports depressed domestic prices. We acknowledge as asserted by several Respondents that the significant decline in raw material costs toward the end of the POI contributed to falling U.S. prices for PET resin, and we intend to explore this issue further in any final phase of these investigations.<sup>125</sup>

Because demand increased only modestly over the POI and the domestic industry's raw materials costs declined substantially, it would not have been likely for the domestic industry to institute price increases. We therefore find that subject imports did not have the effect of preventing price increases that would otherwise have occurred to a significant degree.<sup>126</sup>

Accordingly, based on the record in the preliminary phase of these investigations, we find the underselling by the subject imports to be significant and that subject imports depressed the prices of the domestic like product at a time in which subject import volume and market penetration increased. We thus find for the purposes of these preliminary determinations that subject imports had significant effects on prices of the domestic like product.

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<sup>123</sup> The domestic industry's price for product 1 decreased irregularly from \$\*\*\* per pound in the first quarter of 2012 to \$\*\*\* per pound in the fourth quarter of 2014, a decline of \*\*\* percent. CR/PR at Tables V-3, V-11. Its price for product 2 decreased irregularly from \$\*\*\* per pound in the first quarter of 2012 to \$\*\*\* per pound in the fourth quarter of 2014, a decline of \*\*\* percent. CR/PR at Tables V-5, V-11. Its price for product 3 decreased irregularly from \$\*\*\* per pound in the first quarter of 2012 to \$\*\*\* per pound in the fourth quarter of 2014, a decline of \*\*\* percent. CR/PR at Tables V-7, V-11. Its price for product 4 decreased irregularly from \$\*\*\* per pound in the first quarter of 2012 to \$\*\*\* per pound in the fourth quarter of 2014, a decline of \*\*\* percent. CR/PR at Tables V-9, V-11. Data on both prices to unrelated purchasers and on direct import values indicate declines for subject imports. CR/PR at Tables V-3-7, V-9-10.

<sup>124</sup> CR/PR at Table V-11.

<sup>125</sup> CR at V-1, PR at V-1. Respondents from China and Oman argue that the record evidence demonstrates that falling raw material prices explain fully the domestic industry's price declines during the POI. Chinese Respondents' Postconference Brief at 22-23; OCTAL's Postconference Brief at 13-15.

<sup>126</sup> \*\*\* responding domestic producers reported that they had to reduce prices or roll back announced price increases, and that they lost sales. CR at V-29, PR at V-7-8. Most purchasers did not respond to or denied specific lost sales or revenues allegations, although two purchasers stated that they agreed with certain lost sales allegations. We also note that several denials focused on amounts, and did not always deny that the sale was lost to subject imports. CR/PR at Table V-13.

## E. Impact of the Subject Imports<sup>127</sup>

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

Indicators of domestic industry performance during the POI displayed almost uniformly negative trends. U.S. producers’ production of PET resin declined from \*\*\* pounds in 2012 to \*\*\* pounds in 2013 and then to \*\*\* pounds in 2013.<sup>128</sup> The domestic industry’s capacity fell from \*\*\* pounds in 2012 to \*\*\* pounds in 2013 and then to \*\*\* pounds in 2014.<sup>129</sup> Capacity utilization rose slightly from \*\*\* percent in 2012 to \*\*\* percent in 2013, before declining to \*\*\* percent in 2014.<sup>130</sup> The domestic industry’s U.S. shipments by quantity decreased over the POI, falling from \*\*\* pounds in 2012 to \*\*\* pounds in 2013 and then to \*\*\* pounds in 2014.<sup>131</sup> Inventories fluctuated on an annual basis, increasing from \*\*\* pounds in 2012 to \*\*\* pounds in 2013, then decreasing to \*\*\* pounds in 2014.<sup>132</sup> The domestic industry’s share of the U.S. market declined from \*\*\* percent in 2012 to \*\*\* percent in 2013 and \*\*\* percent in 2014.<sup>133</sup>

Most employment indicators fell over the POI. The domestic industry’s number of production and related workers declined from \*\*\* in 2012 to \*\*\* in 2013 and then to \*\*\* in 2014.<sup>134</sup> Total hours worked<sup>135</sup> and wages paid<sup>136</sup> also decreased over the POI, and labor productivity remained relatively stable.<sup>137</sup>

The domestic industry’s financial performance deteriorated during the POI. Net sales by value declined from \$\*\*\* in 2012 to \$\*\*\* in 2013 and then to \$\*\*\* in 2014.<sup>138</sup> Due to falling raw material prices, total cost of goods sold (COGS) fell throughout the POI, but by a smaller amount than sales

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<sup>127</sup> Commerce has initiated antidumping duty investigations based on estimated dumping margins of 96.30 percent to 102.99 percent for PET resin from Canada; 193.48 percent to 206.42 percent for PET resin from China; 19.41 percent for PET resin from India; and 116.91 percent to 120.05 percent for PET resin from Oman. *Certain Polyethylene Terephthalate Resin From Canada, the People’s Republic of China, India, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 80 FR 18376, April 6, 2015.

<sup>128</sup> CR/PR at Table III-3.

<sup>129</sup> CR/PR at Table III-3.

<sup>130</sup> CR/PR at Table III-4.

<sup>131</sup> CR/PR at Table III-5.

<sup>132</sup> CR/PR at Table III-6.

<sup>133</sup> CR/PR at Table IV-6.

<sup>134</sup> CR/PR at Table III-8.

<sup>135</sup> CR/PR at Table III-8. Total hours worked decreased from \*\*\* in 2012 and 2013 to \*\*\* in 2014.

<sup>136</sup> CR/PR at Table III-8. Wages paid increased slightly from \$\*\*\* in 2012 to \$\*\*\* in 2013, and decreased to \$\*\*\* in 2014.

<sup>137</sup> CR/PR at Table III-8. Labor productivity decreased slightly from \*\*\* pounds per hour in 2012 to \*\*\* pounds per hour in 2013, before increasing slightly to \*\*\* pounds per hour in 2014.

<sup>138</sup> CR/PR at Table VI-1.

revenues. Total COGS fell from \$\*\*\* in 2012 to \$\*\*\* in 2013 and then to \$\*\*\* in 2014.<sup>139</sup> The domestic industry's ratio of COGS to net sales increased from \*\*\* percent in 2012 to \*\*\* percent in 2013 and then to \*\*\* percent in 2014.<sup>140</sup> The domestic industry's operating income decreased from \$\*\*\* in 2012 to \$\*\*\* in 2013, and to \$\*\*\* in 2014.<sup>141</sup> The industry's ratio of operating income to net sales declined from \*\*\* percent in 2012 to \*\*\* percent in 2013 and then to \*\*\* percent in 2014.<sup>142</sup> Capital expenditures increased from \$\*\*\* in 2012 to \$\*\*\* in 2013 and \$\*\*\* in 2014.<sup>143</sup>

The decline in the domestic industry's operating income over the POI, which concluded in the 2014 \*\*\*, was primarily the result of the decrease in unit sales values exceeding the decline in unit costs.<sup>144</sup> On a per-unit basis, net sales value declined by \$\*\*\* during the POI, while raw material costs declined by \$\*\*\*, total COGS declined by \$\*\*\*, and selling, general, and administrative expenses increased by \$\*\*\*.<sup>145</sup> Thus, per-unit operating costs and expenses declined by approximately \$\*\*\* during the POI – less than the decline in per-unit sales values.<sup>146</sup>

As discussed above, we have found that the volume of cumulated subject imports was significant over the POI and that the subject imports significantly undersold and depressed prices of the domestic like product. Subject imports consequently gained market share at the expense of the domestic industry. The domestic industry's production, shipments, and employment declined, notwithstanding a modest increase in apparent consumption. The domestic industry experienced lower revenues because of the lost market share, declining shipments, and price declines. These lower revenues, in turn, led to declining financial performance that was materially worse than it would have been otherwise. Therefore, for purposes of these preliminary determinations, we find that that the cumulated subject imports had a significant impact on the domestic industry.

We have also considered whether there are other factors that may have had an adverse impact on the domestic industry during the POI to ensure that we are not attributing injury from other such factors to the subject imports. The volume of nonsubject imports declined from 532.8 million pounds in

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<sup>139</sup> CR/PR at Table VI-1.

<sup>140</sup> CR/PR at Table VI-1.

<sup>141</sup> CR/PR at Table VI-1.

<sup>142</sup> CR/PR at Table VI-1.

<sup>143</sup> CR at VI-8 n.12, PR at VI-3 n.12. Most expenditures in 2013 and 2014 were related to M&G's new facility in Corpus Christie, Texas.

<sup>144</sup> CR/PR at Table C-1.

<sup>145</sup> CR at VI-4, PR at VI-1.

<sup>146</sup> CR at VI-4, PR at VI-1. Respondents from China, India, and Oman argue that any decline in the domestic industry's profitability is due to \*\*\* internal transfer pricing policy for raw material costs and not from the effect of subject imports. The Respondents claim that had \*\*\* experienced the same declines in raw material costs as the other domestic producers, there would be no decline in the domestic industry's operating margins for the POI. Chinese Respondents' Postconference Brief at 24-27; Dhunseri's Postconference Brief at 24-25; Reliance's Postconference Brief at 16-18; OCTAL's Postconference Brief at 24-29. Initially, we observe that approximately two-thirds of \*\*\* raw material costs in 2014 were not from affiliates. CR at VI-5 n.3, PR at VI-2 n.3. Nevertheless, because \*\*\* decline in unit values of raw materials in 2014 differs from that of the other domestic producers of PET resin, we will explore this issue further in any final phase of these investigations. CR/PR at Table VI-2. We encourage parties to provide comments to the draft questionnaires in any final phase of these investigations on whether anomalous patterns in the raw materials cost data warrant collection of relevant information regarding input purchases from related entities.

2012 to 422.5 million pounds in 2013, before increasing to 566.1 million pounds in 2014.<sup>147</sup> Nonsubject imports' share of the U.S. market declined from \*\*\* percent in 2012 to \*\*\* percent in 2013, before increasing to \*\*\* percent in 2014.<sup>148</sup> The information in the record indicates that average unit values ("AUVs") for nonsubject imports were higher than those for subject imports in 2014, when subject imports rose to their highest level of the period.<sup>149</sup> Consequently, the adverse effects of the cumulated subject imports are distinct from any effects attributable to the nonsubject imports.<sup>150</sup>

Chinese and Indian Respondents contend that the closure of domestic PTA production units in 2014 adversely affected domestic PET resin production and led to increased imports, and that the slight decrease in domestic shipment quantities and market share in 2014 was largely offset by increased supply to the U.S. market by domestic producers' facilities in Mexico.<sup>151</sup> To the extent these respondents claim that the domestic industry used imports of PET resin from their affiliated producers in Mexico to remedy their own supply shortages caused by *force majeure* situations at suppliers of PTA, the *force majeure* issues did not occur until late in 2014, and therefore can explain neither earlier increases in subject import volume nor earlier losses of the domestic industry's market share to subject imports.<sup>152</sup>

Respondents from China, India, and Oman argue further that the decline in the domestic industry's capacity utilization from \*\*\* percent in 2012 to \*\*\* percent in 2014 is entirely accounted for by the decline in the domestic industry's export shipments during this period.<sup>153</sup> It is true that falling exports accounted for a significant share of the decline in the domestic industry's total shipments over the POI. Nevertheless, the decline in export shipments does not explain the domestic industry's steady loss of market share to subject imports, nor does it explain why the domestic industry's U.S. shipments and prices declined, even as demand for PET resin increased modestly in the U.S. market.<sup>154</sup> Consequently, the adverse impact that the domestic industry incurred during the POI cannot be fully explained by this factor.

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<sup>147</sup> CR/PR at Table IV-5.

<sup>148</sup> CR/PR at Table IV-6.

<sup>149</sup> CR/PR at Table C-1. While we typically rely on AUV data with caution because differences in AUVs can reflect differences in product mix, product mix issues appear to be relatively limited here as there is fairly little variation in prices between different types of PET resin. CR/PR at Tables V-3-V-10. In any final phase of these investigations, we will collect pricing data for nonsubject imports.

<sup>150</sup> Vice Chairman Pinkert encourages parties in any final phase of these investigations to comment on the appropriate application of the *Bratsk/Mittal Steel* analysis of nonsubject imports.

<sup>151</sup> Chinese Respondents' Postconference Brief at 17-18; Reliance's Postconference Brief at 10-12; Ravago's Postconference Brief at 19-20.

<sup>152</sup> Respondents' arguments that we should combine domestic producer's imports from Mexico with their U.S. shipments in assessing the effect of subject imports on the U.S. industry is not consistent with the analysis required by statute to determine whether "an industry in the United States is materially injured by subject imports." 19 U.S.C. § 1673d(b)(1)(A) (emphasis added). The statute further states that the impact of subject imports is to be evaluated "only in the context of production operations within the United States." 19 U.S.C. § 1677(7)(B)(i)(III).

<sup>153</sup> Chinese Respondents' Postconference Brief at 28; Dhunseri's Postconference Brief at 26; Reliance's Postconference Brief at 19-20.

<sup>154</sup> CR/PR at Table C-1.



In sum, the record in the preliminary phase of these investigations indicates that the cumulated subject imports had a significant impact on the domestic industry and that there is a reasonable indication of material injury by reason of cumulated subject imports. We therefore reach affirmative preliminary determinations with respect to cumulated subject imports of PET resin from Canada, China, India, and Oman.

### **VIII. Conclusion**

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



# 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”)<sup>1</sup> 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.<sup>2 3</sup>

| Effective date | Action   |
|----------------|--|
| March 10, 2015 | Petition filed with Commerce and the Commission; institution of Commission investigation (80 FR 13889, March 17, 2015) |
| March 31, 2015 | Commission’s conference  |
| April 6, 2015  | Commerce’s notices of initiation (80 FR 18369 (CVD) and (80 FR 18376 (AD))   |
| April 23, 2015 | Commission’s vote  |
| April 24, 2015 | Commission’s determination   |
| May 1, 2015    | Commission’s views   |

## 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*

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<sup>1</sup> See the section entitled “The Subject Merchandise” in *Part I* of this report for a complete description of the merchandise subject to these investigations.

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

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

*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--

*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, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.*

### **Organization of report**

*Part I* of this report presents information on the subject merchandise and alleged subsidy and dumping margins, and the domestic like product. *Part II* of this report presents information on conditions of competition and other relevant economic factors. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. *Parts IV* and *V* present the volume of subject imports and pricing of domestic and imported products, respectively. *Part VI* presents information on the financial experience of U.S. producers. *Part VII* presents the statutory requirements and

information obtained for use in the Commission’s consideration of the question of threat of material injury as well as information regarding nonsubject countries.

## **MARKET SUMMARY**

PET resin is generally used to 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, M&G, Nan Ya, and Indorama Ventures Holdings LP (“Indorama”).

The only producer of PET resin in Canada is Selenis Canada, Inc. (“Selenis”) and the only PET resin producer in Oman is Octal Petrochemical LLC FZC (“Octal”). The leading producers of PET resin in other subject countries are Dhunseri Petrochem & Tea Ltd. in India and Far East Industries (Shanghai) Ltd. in China. 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, \*\*\* from Indonesia, and \*\*\* from Taiwan.

Apparent U.S. consumption of PET resin totaled approximately \*\*\* pounds (\*\*\*) in 2014. U.S. producers’ U.S. shipments of PET resin totaled approximately \*\*\* 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 \*\*\* pounds (\*\*\*) 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 virtually all of U.S. production of PET resin during 2014. U.S. imports from Oman are based on the questionnaire responses of seven firms and all other U.S. imports are based on Official Commerce Statistics.<sup>4</sup> Appendix D presents U.S. apparent consumption and market shares with U.S. imports of PET resin from Canada based on the questionnaire responses of seven firms.

## **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

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<sup>4</sup> Substantially all imports of PET resin are believed to enter under subheading 3907.60.00.30 of the Harmonized Tariff Schedule of the United States (HTSUS).

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.<sup>5</sup>

## NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

### Alleged subsidies

On April 6, 2015, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigations on PET resin from China, India, and Oman.<sup>6</sup> Commerce identified the following 19 government programs in China:<sup>7</sup>

- Loan Programs
  - Policy Loans to the PET Resin Industry
  - Preferential Export Financing
- Tax Programs
  - Income Tax Deductions for Research and Development Expenses under the Enterprise Income Tax Law
  - Income Tax Credits for Foreign Invested Enterprises (FIEs) and Certain Domestically-Owned Companies Purchasing Domestically-Produced Equipment
  - Import Tariff and Value-Added Tax (VAT) Exemptions on Imported Equipment in Encouraged Industries
  - VAT Refunds for FIEs Purchasing Domestically-Produced Equipment
  - City Construction Tax and Education Fees Exemptions for FIEs
  - VAT Subsidies for FIEs
  - Yangpu Economic Development Zone Preferential Tax Policies
- Government Provision of Goods and Services for Less Than Adequate Remuneration (LTAR)
  - Provisions of Land for LTAR to Enterprises in Special Economic Zones

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<sup>5</sup> *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).

<sup>6</sup> *Certain Polyethylene Terephthalate Resin From the People's Republic of China, India, and the Sultanate of Oman: Initiation of Countervailing Duty Investigations*, 80 FR 18369, April 6, 2015.

<sup>7</sup> Commerce determined that the following programs did not meet the requirements for initiation: Income Tax Reductions for HNTes and Income Tax Reductions and Exemptions for HNTes Based on Geographic Location. *Enforcement and Compliance Office of AD/CVD Operations CVD Investigation Initiation Checklist, Certain Polyethylene Terephthalate Resin from the People's Republic of China (C-570-025)*, March 30, 2015.

- Provision of Electricity for LTAR
- Provision of Primary Inputs for LTAR
- Grant Programs
  - GOC and Sub-Central Government Subsidies for the Development of Famous Brands and China World Top Brands
  - Special Fund for Energy Savings Technology Reform
  - International Market Exploration Fund (SME Fund)
  - Science and Technology Awards
  - Xiamen Municipality Support for Pivotal Manufacturing Industries
  - Xinghuo Development Zone Industrial Structural Adjustment Fund
  - Xinghuo Development Zone Recycling Economic Construction Specialized Fund

Commerce indicated its intent to investigate the following 24 alleged government programs in India:<sup>8</sup>

- Pre- and Post-Shipment Export Financing
- Export Promotion of Capital Goods scheme
- Duty Drawback (DDB) Program
- Status Holder Incentive Scrip
- Advance Licenses Program (aka “Advance Authorization Scheme”)
- Focus Market Scheme
- Focus Product Scheme
- Special Economic Zones (formerly known as Export Processing Zones/Export Oriented Units (EPZ/EOUs))
  - Duty-Free Importation of Capital Goods and Raw Materials, Components, Consumables, Intermediates, Spare Parts and Packing Material
  - Exemption from Payment of Central Sales Tax (CST) on Purchases of Capital Goods and Raw Materials, Components, Consumables, Intermediates, Spare Parts and Packing Material
  - Exemption from Stamp Duty of all Transactions and Transfers of Immovable Property within the SEZ (Stamp Duty)
  - Exemption from Electricity Duty and Cess (a tax or levy) Thereon on the Sale or Supply to the SEZ Unit
  - SEZ Income Tax Exemptions (Section 10A)
  - Discounted Land Fees in an SEZ
- Export Oriented Units (EOU) Program: Duty Drawback on Furnace Oil Procured from Domestic Oil Companies
- Government of India Loan Guarantees

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<sup>8</sup> *Enforcement and Compliance Office of AD/CVD Operations CVD Investigation Initiation Checklist, Certain Polyethylene Terephthalate Resin from India (C-533-862), March 30, 2015.*

- Income Tax Exemption Scheme
- Market Development Assistance Program
- State and Union Territory Sales Tax Incentive Programs
- Industrial Programs of the State of Maharashtra
  - Industrial Promotion Subsidy
  - Electricity Duty Exemptions
  - Waiver of Stamp Duty
  - Incentives to Strengthening Micro-, Small-, and Medium-Sized and Large Scale Industries
- Incentives Under the West Bengal State Support for Industries Scheme – 2008
- Subsidy Programs in the State of Gujarat

Commerce indicated its intent to investigate the following seven alleged government programs in Oman:<sup>9</sup>

- Tax Programs
  - Exemption from Corporate Income Tax for Companies Located in the Salalah Free Zone (SFZ)
  - Tariff Exemptions on Imported Equipment, Machinery, Raw Materials, and Packaging Materials
- Lending Programs
  - Development Loans for Industrial Projects by the Oman Development Bank
  - Export Credit Discounting Subsidy (“Post-Shipment Financing Loans”)
  - Pre-Shipment Export Credit Guarantees (“Pre-Shipment Export Financing”)
- Government Provision of Goods and Services for Less than Adequate Remuneration (LTAR)
  - Provision of Land or Leases for Land for LTAR in the SFZ
  - Provision of Electricity for LTAR

#### **Alleged sales at LTFV**

On April 6, 2015, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on PET resin from Canada, China, India, and Oman.<sup>10</sup> Commerce has initiated antidumping duty investigations based on estimated dumping margins of 96.30 percent to 102.99 percent for PET resin from Canada; 193.48 percent to 206.42

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<sup>9</sup> *Enforcement and Compliance Office of AD/CVD Operations CVD Investigation Initiation Checklist, Certain Polyethylene Terephthalate Resin from the Sultanate of Oman (C-523-811)*, March 30, 2015.

<sup>10</sup> *Certain Polyethylene Terephthalate Resin From Canada, the People’s Republic of China, India, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 80 FR 18376, April 6, 2015.



percent for PET resin from China; 19.41 percent for PET resin from India; and 116.91 percent to 120.05 percent for PET resin from Oman.

## **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.<sup>11</sup>*

### **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. PET resin from Canada and Oman are eligible to enter free of duty based on free trade agreements. Table I-1 presents complete current tariff rates for PET resin.

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<sup>11</sup> *Certain Polyethylene Terephthalate Resin From Canada, the People's Republic of China, India, and the Sultanate of Oman: Initiation of Less-Than-Fair-Value Investigations*, 80 FR 18376, April 6, 2015.

**Table I-1**  
**PET resin: Tariff rates, 2015**

|               |   | General <sup>1</sup>               | Special <sup>2</sup>   | Column 2 <sup>3</sup> |
|---------------|---|------------------------------------|--|-----------------------|
| 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) <sup>2</sup>   |                       |
| 3907.60.0070  | Other   |                                    |  |                       |

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

<sup>2</sup> 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.

<sup>3</sup> 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.<sup>12</sup>

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.<sup>13</sup> 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.<sup>14</sup>

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 where the substance being filled into the container requires

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<sup>12</sup> This discoloration in pellet form is due to part of the manufacturing process. See “Manufacturing Process” section herein.

<sup>13</sup> 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.

<sup>14</sup> Common PET resin applications with such high IVs include tire cord, certain strapping, and most microwaveable containers applications. PET resin within the IV packaging-grade range would be covered by the scope of these investigations, even if purchased for conversion into strapping or microwaveable container products.

high temperatures<sup>15</sup> in the filling process, analogous to a canning process.<sup>16</sup> 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,<sup>17</sup> 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.<sup>18</sup> 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 can also be directly extruded to produce high-strength strapping for industrial uses.

There exists a recycling industry for PET resin applications. 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 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.<sup>19</sup> PET is a recyclable product, and the American Plastics Counsel 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.<sup>20</sup>

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 bags (super sacks) within large metal shipping containers. Subject imported product may be

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<sup>15</sup> Hot-fill refers to the use of PET resin for products like juices and sauces that are filled hot by the bottler.

<sup>16</sup> 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.

<sup>17</sup> 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.

<sup>18</sup> Because bottle converters often create the finished bottle product, they 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.

<sup>19</sup> \*\*\* indicated that a portion of domestic production involves blended PET resin.

<sup>20</sup> Conference transcript, pp. 85 (Adlan); [http://en.wikipedia.org/wiki/Resin\\_identification\\_code](http://en.wikipedia.org/wiki/Resin_identification_code) and the PET Resin Association at [http://www.petresin.org/news\\_NoBPAinPET.asp](http://www.petresin.org/news_NoBPAinPET.asp) (accessed 04/04/15).

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. 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.<sup>21</sup>

### **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”)<sup>22</sup> and the natural gas-based chemical ethylene glycol (“EG”)<sup>23</sup> 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 weight<sup>24</sup> and an estimated 75 to 80 percent of PET resin by cost.<sup>25</sup> AMPET resin producers usually modify polymer properties by incorporating nominal amounts of copolymer chemical reactants such as isophthalic acid (IPA) at levels of 2 to 3 percent by weight.<sup>26</sup>

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

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<sup>21</sup> Conference transcript, pp. 90, 94-95 (Behm); pp. 155-156 (Rathore); pp. 156 (Jones).

<sup>22</sup> 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.

<sup>23</sup> Also referred to as MEG, or mono ethylene glycol.

<sup>24</sup> <http://prtraders.com/index.php/products-specifications> (accessed April 9, 2015).

<sup>25</sup> Conference transcript, pp. 114 (Porter); pp. 36 (Cullen).

<sup>26</sup> Copolymer resin is usually demanded by consumers because of improved processing speed and physical properties. Homopolymers define unmodified forms of PET resin.

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.<sup>27</sup> Some PET resin producers are partially vertically integrated between feedstocks and PET resin production, while others are not.

Octal in Oman uses a Melt to Resin (MTR) process in its manufacturing, which is different from the conventional SSP technology.<sup>28</sup> In MTR technology, no solid state crystallizer is used, which saves on the cost of that equipment.<sup>29,30</sup> Octal contends that its technology has enhanced attributes not readily available by other suppliers, including the Petitioners<sup>31</sup>. Octal stated that the MTR process has lower residence time resulting in minimal generation of secondary products and cross linked polymers (16 hour residence times vs. the conventional 24 hours), more stable parameters lower crystallinity, lower temperature processing, spherical pellet output compared to cylinder shaped output which leads to lower dust generation and lower IV drop during downstream processing, a more narrow processing window due to narrow molecular weight distribution and improved process ability, lower thermal heat stress, and energy cost savings.<sup>32</sup>

### **Domestic Like Product**

Petitioners contend the Commission should define the domestic like product co-extensively with the scope of the investigations. Respondents did not raise any issues with respect to the definition of the domestic like product.

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<sup>27</sup> Nitrogen gas of high purity is typically produced onsite by air liquefaction and distillation.

<sup>28</sup> Conference transcript, pp. 110-111 (Porter).

<sup>29</sup> <http://www.plastemart.com/upload/Literature/New-technology-offers-cost-benefit-to-PET-producers.asp> (accessed April 9, 2015).

<sup>30</sup> [http://www.thyssenkrupp-industrial-solutions.com/fileadmin/documents/brochures/MTR\\_Melt-To-Resin\\_Technology\\_Brochure\\_Uhde\\_Inventa-Fischer.pdf](http://www.thyssenkrupp-industrial-solutions.com/fileadmin/documents/brochures/MTR_Melt-To-Resin_Technology_Brochure_Uhde_Inventa-Fischer.pdf) (accessed April 9, 2015).

<sup>31</sup> Conference transcript, pp. 110 (Porter).

<sup>32</sup> Conference transcript, pp. 111-114 (Porter).

## 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.<sup>1</sup> Apparent U.S. consumption of PET resin increased somewhat during 2012-14, rising \*\*\* percent over the period.

### CHANNELS OF DISTRIBUTION

U.S. producers and importers sold mainly to end users (including converters), although importers were somewhat more likely to sell to distributors, as shown in table II-1.<sup>2</sup>

**Table II-1**

**PET resin: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2012-14**

\* \* \* \* \*

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,<sup>3</sup> with larger brand-owners more likely to perform their own conversions. Other industries (such as the carpet industry) may be less likely to use converters.<sup>4</sup> Customers for PET resin in the United States are increasingly becoming consolidated. There are five major converters in the United States (\*\*\*) and three major end users (\*\*\*) in the United States. These eight firms account for a majority of the PET resin consumption in the United States.<sup>5</sup>

Major customers reported by U.S. producers include \*\*\*. Major customers reported by U.S. importers include \*\*\*.

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<sup>1</sup> 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.

<sup>2</sup> \*\*\*.

<sup>3</sup> Nan Ya described increased sales to brand owners (i.e., end users) that then arrange for converters to handle the PET resin purchased. Conference transcript, pp. 25 (Freeman) and 54 (Adlam and Freeman).

<sup>4</sup> Conference transcript, pp. 54-56 (Adlam, Cullen, Freeman, and McNaull).

<sup>5</sup> Emails from \*\*\*, and 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.

## GEOGRAPHIC DISTRIBUTION

U.S. producers reported selling PET resin to all regions in the contiguous United States (table II-2). Importers of subject product did as well, but with some regional emphases. Importers of Canadian PET resin were more likely to report sales in the eastern United States, importers of Chinese PET resin were more likely to report sales in the Pacific region of the United States, and importers of Indian PET resin were more likely to report sales in the southeast region of the United States. Pacific Rim described the West Coast as a region of particular emphasis for importers of PET resin,<sup>6</sup> while Selenis Canada stated that it does not sell Canadian product in U.S. regions further from Montreal, Canada (e.g., the Southwest and West). Chinese, Indian, and Omani respondents also stated that while 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. In contrast, Chinese, Indian, and Omani respondents stated that imports serve the West Coast and/or suppliers that want smaller quantities of PET resin.<sup>7</sup>

**Table II-2**

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

\* \* \* \* \*

Most PET resin sales are within 1,000 miles of a U.S. production facility or point of shipment. For U.S. producers, 9 percent of sales were within 100 miles of their production facility, 72 percent were between 101 and 1,000 miles, and 19 percent were over 1,000 miles. Importers of PET resin from subject countries sold approximately 29 percent within 100 miles of their U.S. point of shipment, 65 percent between 101 and 1,000 miles, and 6 percent over 1,000 miles. On a country-specific basis, a majority of imports from Canada and Oman were sold between 101 and 1,000 miles of their U.S. point of shipment, while a majority of imports from China and India were sold within 100 miles of their U.S. point of shipment.

## 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 changes in the quantity of shipments of U.S.-produced

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<sup>6</sup> Conference transcript, p. 91 (Behm) and p. 126 (Mendoza).

<sup>7</sup> Postconference brief of Chinese producers, p. 11; postconference brief of Dhunseri, p. 19; and postconference brief of OCTAL, p. 1.



PET resin to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of some unused capacity and inventories, tempered by few shipments to alternate markets and limited ability to produce other products.

### ***Industry capacity***

Domestic capacity utilization decreased from \*\*\* percent in 2012 to \*\*\* percent in 2014. This moderately high level of capacity utilization suggests that U.S. producers may have a moderate ability to increase production of PET resin in response to an increase in prices.

### ***Alternative markets***

U.S. producers' exports, as a percentage of total shipments, decreased from \*\*\* in 2012 to \*\*\* in 2014, indicating 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 two producers reportedly can produce on the same equipment as PET resin are \*\*\*. However, these firms stated that doing so would be expensive and difficult.

### ***Supply constraints***

Three producers indicated that they had not faced any inability to meet orders, but \*\*\* stated that it had faced supply constraints \*\*\* due to a problem with the largest U.S. supplier of raw material polyethylene terephthalate, as discussed below in "product and supply changes."

### **Subject imports from Canada<sup>8</sup>**

Based on available information, the producer of PET resin in Canada has the ability to respond to changes in demand with small 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

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<sup>8</sup> The Commission received \*\*\*. \*\*\*.

the limited availability of unused capacity, limited alternate markets other than the United States and Canada, low inventories, and a limited ability to produce alternate products).

### ***Industry capacity***

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***

\*\*\* Canadian production went to \*\*\*, possibly indicating that the Canadian producer has limited ability to shift export shipments \*\*\*.

### ***Inventory levels***

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***

The Canadian producer indicated that it could switch to producing \*\*\*, but stated that to do so would be costly.

### **Subject imports from China<sup>9</sup>**

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 and the existence of alternate markets, constrained by limited inventories and a lack of ability to produce alternate products.

### ***Industry capacity***

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,

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<sup>9</sup> 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.

the ability to increase capacity each year suggests that Chinese producers have some ability to respond to changes in price with increased production.<sup>10</sup>

### ***Alternative markets***

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***

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***

Only two of seven Chinese producers indicated that they could shift their PET resin production to another product, with both naming \*\*\* as that product.

### ***Subject imports from India***<sup>11</sup>

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.

### ***Industry capacity***

Indian producers' capacity utilization was \*\*\* in 2012 and 2013 before falling back to \*\*\* percent in 2014. However, between 2012 and 2013, capacity rose \*\*\* percent before falling back somewhat in 2014, possibly indicating some ability to increase capacity in response to changes in price.

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<sup>10</sup> \*\*\* 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 \*\*\*.

<sup>11</sup> The Commission received two questionnaire response(s) from Indian producers. These firms' exports to the United States accounted for \*\*\* percent of U.S. imports of PET resin from India during 2012-14.

### ***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.<sup>12</sup>

### ***Inventory levels***

Indian inventories were \*\*\* percent of total shipments in 2014, 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 \*\*\*.

### **Subject imports from Oman<sup>13</sup>**

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, indicating that the Omani producer has substantial ability to respond to changes in price with changes in production. Counsel for the Omani producer described Omani production as using a new “melt to resin” technology that is more efficient than previous PET resin production technologies.<sup>14</sup>

### ***Alternative markets***

Over 2012-14, 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.<sup>15</sup>

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<sup>12</sup> 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.

<sup>13</sup> The Commission received \*\*\*. \*\*\*.

<sup>14</sup> Conference transcript, pp. 110-111 (Porter), and postconference brief of Octal, exhibit 1. 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.

<sup>15</sup> 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.

### ***Inventory levels***

The Omani producer's inventories relative to total shipments fell from \*\*\* percent in 2012 to \*\*\* percent in 2014, indicating a limited ability to respond to changes in price with shipments from inventory.

### ***Production alternatives***

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

### ***Supply constraints***

Importers \*\*\* stated that they had been unable to supply U.S. customers with Omani PET resin at various times since January 1, 2012. \*\*\* stated that it had declined offers when prices in other world markets (especially its primary markets in \*\*\*) were higher. \*\*\* stated that its \*\*\* had been sold out at times since January 1, 2012.

### ***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, and then Taiwan, Indonesia, and Pakistan.

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.<sup>16</sup> Respondents generally described Mexican imports as controlled by the U.S. industry (due to cross-ownership) and growing over 2012 through 2014.<sup>17</sup>

However, M&G described its U.S. sales of Mexican product as sold at prices comparable to those of U.S. producers. It added that its 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.<sup>18</sup>

### ***Product and supply changes***

Producers and importers were asked if there had been any significant changes in the product mix, range, or marketing of PET resin since January 1, 2012. Four producers and 14 importers answered that there had not been, but four importers indicated that there had. \*\*\* described increased demand from increasing use of recycling material, increasing production of carpets made with PET resin, and increased use in container applications. \*\*\* also noted the

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<sup>16</sup> Postconference brief of Reliance, p. 5.

<sup>17</sup> Conference transcript, pp. 92 (Behm) and 122 (Rajvanshi).

<sup>18</sup> Conference transcript, pp. 30, 40, and 79 (Adlam).

increased use in container applications. \*\*\* stated that \*\*\*, its product was higher quality and more consistent than U.S. product as well as \*\*\*.

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 nine importers answered that they had not. However, \*\*\* and six importers stated that they had. \*\*\* and three of these importers described a shortage in the U.S. supply of purified terephthalic acid (PTA) due to supply problems at the largest U.S. supplier of PTA leading to constrained U.S. shipments of PET resin.<sup>19</sup> \*\*\* described its supply as constrained for a few months in the second half of 2014. Additionally, importer \*\*\* noted the recent labor actions at West Coast ports as causing it to lose sales, and \*\*\* stated that U.S.-produced “non-prime” PET resin had been in short supply, leading to increased imports of these products. Additionally, two importers noted issues with PET resin from \*\*\*, as noted above.

### **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 factors are the limited range of substitute products. The 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. U.S. producers reported that end uses for PET resin include bottles of various types (water, carbonated beverages, heatset), 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.<sup>20</sup> However, petitioners stated that PET resin customers are not divided between hot-fill and cold-fill applications.<sup>21</sup>

### **Cost share**

PET resin accounts for a large share of the cost of the end-use products in which it is used, 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. Reported cost

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<sup>19</sup> The largest U.S. supplier of PTA, a BP subsidiary, declared *force majeure* in late 2014. See, for example, postconference brief of Chinese producers, p. 16.

<sup>20</sup> Postconference brief of Chinese producers, p. 2.

<sup>21</sup> Postconference brief of petitioners, p. 13.

shares for some end uses included 50-80 percent for a beverage bottle, 50-80 percent for sheet, 50-88 percent for containers, 40 percent for carpet, and 60 percent for strapping.

## **Business cycles**

Most firms did not report that the PET resin market had distinctive or changing business cycles, but some firms did describe seasonal business patterns and global oversupply as important business conditions.

Three U.S. producers and seven importers indicated that the U.S. PET resin market was not subject to distinctive business cycles or conditions of competition. However, \*\*\* and ten importers stated that there were distinctive business cycles. \*\*\* and seven importers stated that PET resin demand was higher during spring and summer, as more bottles are consumed for beverages.<sup>22</sup> Additionally, importer \*\*\* stated that global demand falls after Chinese New Year, which it described as affecting the pricing of imported PET resin.

Moreover, five importers indicated that the PET resin market has distinctive conditions of competition. \*\*\* stated that the market was very competitive due to global oversupply, and \*\*\* also described domestic and foreign capacity increases as a distinctive condition of competition. \*\*\* stated that Asian raw material prices are less expensive than U.S. raw material prices. \*\*\* stated that the carpet market is usually stable during the year but can be affected by fluctuations in the housing market.

When asked if there had been any changes to the business cycles or conditions of competition for PET resin since January 1, 2012, one producer and six importers stated that there had not been, but \*\*\* and five importers stated that there had. \*\*\* 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 producers began shipping product to the United States. Three importers described increased PET resin capacity either globally or in the United States (or both), with \*\*\* noting specifically the additional capacity from the planned M&G plant in Texas. \*\*\* indicated that ocean seasons and labor disruptions at ports can affect the PET resin market.

## **Demand trends**

Most firms reported an increase in U.S. demand for PET resin since January 1, 2012 (table II-3). However, \*\*\* producers reporting increased demand described the increase as low or minimal. At the conference, petitioners described demand as increasing in some segments (water bottling, thermoformed clamshell packaging, and carpets) while declining in the soft drink segment.<sup>23</sup>

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<sup>22</sup> Market participants offered slightly different variations on exactly which months had higher demand for this reason.

<sup>23</sup> Conference transcript, pp. 63-64 (Adlam and Cullen).

Similarly, importer \*\*\* described annual demand growth as approximately one to two percent per year. Importer \*\*\* indicated the general economic growth, increased demand for recyclable bottle materials, and increased demand for clearer bottle materials had all led to increased demand for PET resin. Importer \*\*\* cited PET resin's increased price competitiveness with other plastics as a reason for increased demand for PET resin. Importer \*\*\* described the prices of oil and materials as leading to fluctuating consumption of PET resin. Importer \*\*\* described global supply as exceeding demand.

With regard to demand in other countries, two producers described increases there as small, while \*\*\* stated that demand in developing countries like China and India was growing faster than in developed regions like Europe. Importers attributed increased world demand to many of the same reasons for increased demand in the U.S. market, with importer \*\*\* adding that demand growth in the rest of the world is much higher than in the United States. Importer \*\*\* noted that lower PET resin feedstock prices have also driven increased consumption, with those lower prices coming from lower oil prices and increased Chinese supply of feedstock.

**Table II-3**  
**PET resin: Firms' responses regarding U.S. demand and demand outside the United States**

| Item                                    | Increase | No change | Decrease | Fluctuate |
|---|----------|-----------|----------|-----------|
| <b>Demand in the United States</b>      |          |           |          |           |
| U.S. producers                          | ***      | ***       | ***      | ***       |
| Importers                               | 13       | 1         | 2        | 2         |
| <b>Demand outside the United States</b> |          |           |          |           |
| U.S. producers                          | ***      | ***       | ***      | ***       |
| Importers                               | 10       | 1         | 1        | 2         |

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

### Substitute products

Substitutes for PET resin are limited. Three U.S. producers and 12 importers reported that there were no substitutes. One 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. Four importers named substitutes including glass, metal, recycled PET resin, and PVC for bottle applications; polypropylene, polyamides, and natural fiber for carpet applications; and polystyrene and polypropylene for thermoformed packaging uses. Importer \*\*\* noted that as a practical matter, while glass and aluminum are potential substitutes, bottling companies had de facto switched to PET resin and are unlikely to switch back. Few importers indicated that changes in the price of substitutes had affected the price of PET resin. However, \*\*\* described recycled PET resin as competing with PET resin at the low end of the virgin PET resin market. \*\*\* described polypropylene as a lower cost substitute for thermoforming and nonsubject PET resin with lower intrinsic viscosity as a lower cost substitute for master batch applications.



## **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 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 over \*\*\* 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 from Canada reported that over \*\*\* percent of their sales were produced to order, with lead times of \*\*\* days. Importers of PET resin from Oman indicated that approximately \*\*\* percent of their sales were produced to order, with lead times of \*\*\* days. Importers of PET resin from China reported that over \*\*\* percent of their sales of PET resin were from their foreign manufacturers' inventory with lead times of \*\*\* days. The majority of other sales by importers of PET resin from subject countries was from importers' U.S. inventories, usually with lead times of \*\*\* days.

### **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 and importers were asked whether the products can "always," "frequently," "sometimes," or "never" be used interchangeably. As shown in table II-4, most U.S. producers and importers found PET resin from all sources to be "always" or "frequently" interchangeable.<sup>24</sup>

At the conference, Nan Ya described U.S. product and subject imports as "chemically identical" and qualified at the major brand owners/purchasers.<sup>25</sup> 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).<sup>26</sup> Indian producers also described Indian product as not able to compete with U.S. product in all applications, including hot-fill applications.<sup>27</sup> Similarly, Chinese producers described Chinese product as uncompetitive in hot-fill applications.<sup>28</sup>

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<sup>24</sup> In further comments, three importers added that product-specific qualities or market-specific requirements might lead to some variation in interchangeability.

<sup>25</sup> Conference transcript, pp. 28 (Freeman) and 67 (McNaull).

<sup>26</sup> Conference transcript, pp. 94-95 (Behm) and p. 127 (Mendoza).

<sup>27</sup> Conference transcript, p. 117 (Esserman). See also postconference brief of Dhunseri, p. 4; and postconference brief of Reliance, p. 23.

<sup>28</sup> Postconference brief of Chinese producers, p. 12.

Respondents also stated that purchasers look at how consistently a particular supplier’s PET resin works in their application.<sup>29</sup> 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.<sup>30</sup>

**Table II-4**  
**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 |   |   |   |
|--|------------------------------------|-----|-----|-----|------------------------------------|---|---|---|
|  | A                                  | F   | S   | N   | A                                  | F | S | N |
| <b>U.S. vs. subject countries:</b>       |                                    |     |     |     |                                    |   |   |   |
| U.S. vs. Canada                          | ***                                | *** | *** | *** | 6                                  | 6 | 2 | 0 |
| U.S. vs. China                           | ***                                | *** | *** | *** | 4                                  | 9 | 1 | 0 |
| U.S. vs. India                           | ***                                | *** | *** | *** | 4                                  | 9 | 0 | 0 |
| U.S. vs. Oman                            | ***                                | *** | *** | *** | 4                                  | 8 | 1 | 0 |
| <b>Subject countries comparisons:</b>    |                                    |     |     |     |                                    |   |   |   |
| Canada vs. China                         | ***                                | *** | *** | *** | 4                                  | 6 | 1 | 0 |
| Canada vs. India                         | ***                                | *** | *** | *** | 4                                  | 7 | 0 | 0 |
| Canada vs. Oman                          | ***                                | *** | *** | *** | 4                                  | 6 | 2 | 0 |
| China vs. India                          | ***                                | *** | *** | *** | 4                                  | 8 | 0 | 0 |
| China vs. Oman                           | ***                                | *** | *** | *** | 4                                  | 7 | 1 | 0 |
| India vs. Oman                           | ***                                | *** | *** | *** | 4                                  | 7 | 1 | 0 |
| <b>Nonsubject countries comparisons:</b> |                                    |     |     |     |                                    |   |   |   |
| U.S. vs. nonsubject                      | ***                                | *** | *** | *** | 4                                  | 9 | 1 | 0 |
| Canada vs. nonsubject                    | ***                                | *** | *** | *** | 4                                  | 7 | 1 | 0 |
| China vs. nonsubject                     | ***                                | *** | *** | *** | 4                                  | 8 | 1 | 0 |
| India vs. nonsubject                     | ***                                | *** | *** | *** | 4                                  | 8 | 1 | 0 |
| Oman vs. nonsubject                      | ***                                | *** | *** | *** | 4                                  | 7 | 1 | 0 |

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

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

In addition, producers and importers were asked to assess how often differences other than price were significant in sales of PET resin from the United States, subject, or nonsubject countries. As seen in table II-5, most U.S. producers and importers found that differences other than price were “sometimes” or “never” significant. In further comments, Importer \*\*\* described product from Oman as having a competitive advantage over other products due to its

<sup>29</sup> 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.

<sup>30</sup> Postconference brief of Selenis, p. 3.

clarity, quality, range, low transportation costs to the U.S. east coast, and cost efficiency due to its production with the latest technology.

**Table II-5**

**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 |   |   |   |
|--|------------------------------------|-----|-----|-----|------------------------------------|---|---|---|
|  | A                                  | F   | S   | N   | A                                  | F | S | N |
| <b>U.S. vs. subject countries:</b>       |                                    |     |     |     |                                    |   |   |   |
| U.S. vs. Canada                          | ***                                | *** | *** | *** | 0                                  | 1 | 6 | 5 |
| U.S. vs. China                           | ***                                | *** | *** | *** | 0                                  | 1 | 9 | 2 |
| U.S. vs. India                           | ***                                | *** | *** | *** | 0                                  | 2 | 7 | 3 |
| U.S. vs. Oman                            | ***                                | *** | *** | *** | 0                                  | 3 | 5 | 2 |
| <b>Subject countries comparisons:</b>    |                                    |     |     |     |                                    |   |   |   |
| Canada vs. China                         | ***                                | *** | *** | *** | 0                                  | 0 | 7 | 2 |
| Canada vs. India                         | ***                                | *** | *** | *** | 0                                  | 1 | 7 | 2 |
| Canada vs. Oman                          | ***                                | *** | *** | *** | 0                                  | 2 | 5 | 2 |
| China vs. India                          | ***                                | *** | *** | *** | 0                                  | 2 | 6 | 2 |
| China vs. Oman                           | ***                                | *** | *** | *** | 0                                  | 2 | 4 | 2 |
| India vs. Oman                           | ***                                | *** | *** | *** | 0                                  | 2 | 4 | 2 |
| <b>Nonsubject countries comparisons:</b> |                                    |     |     |     |                                    |   |   |   |
| U.S. vs. nonsubject                      | ***                                | *** | *** | *** | 0                                  | 2 | 7 | 2 |
| Canada vs. nonsubject                    | ***                                | *** | *** | *** | 0                                  | 2 | 5 | 2 |
| China vs. nonsubject                     | ***                                | *** | *** | *** | 0                                  | 2 | 5 | 2 |
| India vs. nonsubject                     | ***                                | *** | *** | *** | 0                                  | 2 | 5 | 2 |
| Oman vs. nonsubject                      | ***                                | *** | *** | *** | 0                                  | 2 | 4 | 2 |

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

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



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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the 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 known U.S. production of PET resin during 2014.

### **U.S. PRODUCERS**

The Commission issued a U.S. producer questionnaire to four firms based on information contained in the petitions: DAK, M&G, Nan Ya, and Indorama.<sup>1</sup> Each of the four firms provided useable data on their production operations. Staff believes that these responses represent all known U.S. production of PET resin.

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

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<sup>1</sup> In 2005, the domestic industry consisted of seven U.S. producers of PET resin: DAK, Invista, Wellman, M&G, Nan Ya, Vordian, 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. Conference transcript, p. 22 (McNaull).

**Table III-1**

**PET resin: U.S. producers of PET resin, their positions on the petition, production locations, and shares of reported production, 2012-14.**

| Firm                  | Position on petition | Production location | Share of production (percent) |
|-----------------------|----------------------|---------------------|-------------------------------|
| DAK <sup>1</sup>      | Support              | Charlotte, NC       | ***                           |
| Indorama <sup>2</sup> | ***                  | Asheboro, NC        | ***                           |
| M&G <sup>3</sup>      | Support              | Apple Grove, WV     | ***                           |
| Nan Ya <sup>4</sup>   | Support              | Lake City, SC       | ***                           |
| Total                 |                      |                     | 100.0                         |

<sup>1</sup> DAK is partially owned by Mexican companies, Grupo Petrotex, S.A. de C.V. and DAK Americas Exterior, S.L. Sociedad Unipersona. DAK is also related to two foreign producers of PET resin, DAK Americas Argentina, S.A. (Argentina) and DAK Resinas Americas Mexico S.A. de C.V. (Mexico).

<sup>2</sup> Indorama is wholly owned by Indorama Ventures PCL, Thailand. Indorama is also related to Indorama Polymers Public Company Limited / AsiaPet (Thailand) Limited, Indorama Polyester Industries PCL, UAB Orion Global Pet, Indorama Ventures Europe B.V., Guangdong IVL PET Polymer Co., Ltd., PT Indorama Ventures Indonesia, Indorama Ventures Poland Sp. z.o.o., Auriga Polymers Inc., Indorama Ventures Polymers Mexico, S. de R.L. de C.V., PT. Indorama Polypet Indonesia, Indorama PET (Nigeria) Limited, Indorama Ventures Adana PET Sanayi Anonim Sirketi. Two other related producers, Indorama Polymers Workington Limited and Ottana Polimeri S.R.L., ceased production in 2014.

<sup>3</sup> M&G is wholly owned by M&G USA Corporation. M&G is related to foreign producers of PET resin, M&G Polimeros Mexico S.A. de CV (Mexico) and M&G Polimeros Brazil S.A. (Brazil).

<sup>4</sup> Nan Ya is wholly owned by Nan Ya Plastics Corporation (Taiwan), which is also a producer of PET resin. Additionally, Nan Ya is related to Vietnamese producer of PET resin, Formosa Industries Corp.

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

As indicated in table III-1, each U.S. producer is related to a foreign producer of PET resin. In addition, as discussed in greater detail below, \*\*\*, \*\*\*, and \*\*\* directly import PET resin, and \*\*\* also purchases PET resin from U.S. importers.

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-2 summarizes the responses of the U.S. producers regarding reported industry changes.

**Table III-2**

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

\* \* \* \* \*

M&G has started construction on a new plant in Corpus Christi, Texas, which is expected to become operational in mid-2016.<sup>2</sup> This plant is expected to be the world’s largest PET integrated plant with 1.1 metric tons of capacity.<sup>3</sup> Indorama built a new facility in Decatur, Alabama in 2010 that is co-located with a BP Chemical’s PTA facility. Indorama has announced plans to double the capacity of the facility by the end of 2015.<sup>4</sup>

**U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION**

**PET resin**

Table III-3 and figure III-1 present U.S. producers’ PET resin production capacity, and capacity utilization.

**Table III-3**  
**PET resin: U.S. producers’ production, capacity, and capacity utilization, 2012-2014.**

\* \* \* \* \*

**Figure III-1**  
**PET resin: U.S. producers’ capacity, production, and capacity utilization, 2012-2014.**

\* \* \* \* \*

U.S. producers’ PET resin capacity declined by \*\*\* percent in 2013 and by \*\*\* percent in 2014. U.S. capacity declined in each year (\*\*\* percent in 2013 and \*\*\* percent in 2014) ending \*\*\* percent lower than in 2012. U.S. production of PET resin declined in each year (\*\*\* percent in 2013 and \*\*\* percent in 2014) ending \*\*\* percent lower than 2012. U.S. capacity utilization increased slightly in 2013 before declining by \*\*\* percent in 2014 and ending \*\*\* percent lower in 2014 than in 2012.

Table III-4 presents U.S. producers’ overall production capacity, production of PET resin, production of alternative products, and capacity utilization. U.S. producers’ overall capacity declined by \*\*\* percent from 2012 to 2014. The decline was largely due to the closing of a DAK Americas facility, the closing of an Indorama facility, and a \*\*\*.

**Table III-4**  
**PET resin: U.S. producers’ production, capacity, and capacity utilization, 2012-2014.**

\* \* \* \* \*

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<sup>2</sup> Conference transcript, p. 30 (Adlam).  
<sup>3</sup> Conference transcript, p. 15 (Esserman).  
<sup>4</sup> Conference transcript, p. 92 (Behm).

Similar to capacity, total production declined each year during 2012-14 (\*\*% percent in 2013 and \*\*% percent in 2014); production was \*\*% percent lower in 2014 than 2012. 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 Indorama, Nan Ya, M&G, and DAK Americas, respectively). Two producers, \*\*% make other products on the same equipment and machinery used in the production of subject PET resin.

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.<sup>5</sup> \*\*. <sup>6</sup> In addition, the supply of PET resin was disrupted by the west coast longshoremen strike.<sup>7</sup>

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

Table III-5 presents U.S. producers' U.S. 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 (\*\*% percent based on quantity in 2014). Export shipments accounted for \*\*% percent of U.S. producers' shipments. Leading export destinations included \*\*%.

The quantity of U.S. producers' commercial U.S. shipments declined each year between 2012 and 2014 (\*\*% percent in 2013 and \*\*% percent in 2014), and were \*\*% percent lower in 2014 than in 2012. A majority of the decline was due to \*\*% percent from 2012 to 2014. U.S. producers' export shipments declined by \*\*% percent from 2012 to 2014.

Unit values of U.S. producers' commercial shipments were \*\*% in both 2012 and 2013 and declined to \*\*% in 2014. Average unit values decreased for \*\*% in 2013 and increased for \*\*%. Average unit values decreased for all U.S. producers in 2014 and were lower for all U.S. producers in 2014 than they were in 2012. \*\*% U.S. producers exported PET resin from 2012 to 2014 with \*\*% producer exporting less in 2014 than in 2012.

**Table III-5**  
**PET resin: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2012-2014**

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<sup>5</sup> Conference transcript, pp. 93-94 (Behm).

<sup>6</sup> Chinese Producers Brief, p. 16.

<sup>7</sup> Conference transcript, p. 168 (Behm).



## U.S. PRODUCERS' INVENTORIES

Table III-6 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. 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 shipments were \*\*\* percent, respectively, in 2014, compared to 2012.

**Table III-6**  
**PET resin: U.S. producers' end-of-period inventories and ratios, 2012-14**

\* \* \* \* \*

## U.S. PRODUCERS' IMPORTS AND PURCHASES

As shown in table III-7, three U.S. producers imported PET resin. In 2013, \*\*\*. \*\*. As a ratio to U.S. production, \*\*\*.<sup>8</sup> \*\*\*.<sup>9</sup> \*\*\* 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-7**  
**PET resin: U.S. producers' U.S. production, imports, 2012-14**

\* \* \* \* \*

## U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-8 shows U.S. producers' employment-related data during 2012-14. The number of PRWs declined by \*\*\* percent from 2012 to 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 between 2012 and 2014, while unit labor costs increased steadily.

**Table III-8**  
**PET resin: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2012-14**

\* \* \* \* \*

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<sup>8</sup> \*\*\*.

<sup>9</sup> \*\*\*.



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

### **U.S. IMPORTERS**

The Commission issued importer questionnaires to 61 firms believed to be possible importers of subject PET resin, as well as to all U.S. producers of PET resin.<sup>1</sup> Usable questionnaire responses were received from 21 companies<sup>2</sup>, representing \*\*\* percent of U.S. imports from Canada, China, India, and Oman between 2012 and 2014 under HTS subheading 3907.60.0030. Six firms 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 2012 to 2014.

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<sup>1</sup> The Commission issued questionnaires to those firms identified in the petition, along with other firms based on a review of data provided by U.S. Customs and Border Protection (“Customs”), who imported under HTS subheading 3907.60.0030 in 2014.

<sup>2</sup> \*\*\* submitted a U.S. importer questionnaire response too late to be included in the staff report.

**Table IV-1**  
**PET resin: U.S. importers, their headquarters, and share of total imports by source, 2012-14**

| Firm                                 | Headquarters        | Share of imports by source (percent) |       |       |      |                   |
|--------------------------------------|---------------------|--------------------------------------|-------|-------|------|-------------------|
|                                      |                     | Canada                               | China | India | Oman | All other sources |
| Amcors Rigid Plastics USA, LLC       | Manchester, MI      | ***                                  | ***   | ***   | ***  | ***               |
| Ampet Inc.                           | Florida, FL         | ***                                  | ***   | ***   | ***  | ***               |
| C G Roxane LLC                       | Olancho, CA         | ***                                  | ***   | ***   | ***  | ***               |
| Custom Polymers, Inc.                | Charlotte, NC       | ***                                  | ***   | ***   | ***  | ***               |
| Daewoo International (America) Corp. | Anaheim, CA         | ***                                  | ***   | ***   | ***  | ***               |
| DAK Americas                         | Charlotte, NC       | ***                                  | ***   | ***   | ***  | ***               |
| DL Trading, Ltd.                     | Katy, TX            | ***                                  | ***   | ***   | ***  | ***               |
| Excell Services Llc                  | Raleigh, NC         | ***                                  | ***   | ***   | ***  | ***               |
| Indorama                             | Riverwoods, IL      | ***                                  | ***   | ***   | ***  | ***               |
| Iresin Llc                           | Newark, NJ          | ***                                  | ***   | ***   | ***  | ***               |
| Klöckner Pentaplast of America Inc.  | Gordonsville, VA    | ***                                  | ***   | ***   | ***  | ***               |
| M&G                                  | Houston, TX         | ***                                  | ***   | ***   | ***  | ***               |
| Nexeo Solutions, LLC                 | The Woodlands, TX   | ***                                  | ***   | ***   | ***  | ***               |
| OCTAL Inc.                           | Plano, TX           | ***                                  | ***   | ***   | ***  | ***               |
| Pacific Rim Traders                  | San Francisco, CA   | ***                                  | ***   | ***   | ***  | ***               |
| Plastipak Packaging, INC             | Plymouth, MI        | ***                                  | ***   | ***   | ***  | ***               |
| PolyQuest, Inc.                      | Wilmington, NC      | ***                                  | ***   | ***   | ***  | ***               |
| Ravago Americas LLC                  | Orlando, FL         | ***                                  | ***   | ***   | ***  | ***               |
| Selenis Canada                       | Montreal-East, QC   | ***                                  | ***   | ***   | ***  | ***               |
| Vinmar Overseas Ltd.                 | Houston, TX         | ***                                  | ***   | ***   | ***  | ***               |
| Yoshino America Corporation          | University Park, IL | ***                                  | ***   | ***   | ***  | ***               |
| 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.<sup>3</sup> Appendix D presents U.S. apparent consumption and market shares with U.S. PET resin from Canada based on the questionnaire responses of seven firms.<sup>4</sup> Imports from Canada increased by 14.7 percent from 2012 to 2014, imports from China increased by 55.6

<sup>3</sup> 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.

<sup>4</sup> The Canadian respondent reported they believe the official Commerce import statistics include out of scope product for U.S. imports from Canada, and that questionnaire responses should be used instead.

percent from 2012 to 2014, imports from India increased 70.2 percent from 2012 to 2014, and imports from Oman increased by \*\*\* percent from 2012 to 2014.

Average unit values of U.S. imports of PET resin from China and India declined steadily from 2012-14. The average unit values of PET resin from Canada increased in 2013, then declined in 2014, and were lower in 2014 than in 2012. Average unit values of PET resin from Oman were the same in 2012 and 2013, and then declined in 2014. The average unit values of PET resin from China were significantly lower throughout the period of investigation than the average unit values of PET resin from any other subject country or nonsubject country.

**Table IV-2**  
**PET resin: U.S. imports by source, 2012-14**

| Item   | Calendar year                         |         |         |
|--|---------------------------------------|---------|---------|
|  | 2012                                  | 2013    | 2014    |
|  | <b>Quantity (1,000 pounds)</b>        |         |         |
| U.S. importers' U.S. imports from.--<br>Canada | 268,572                               | 319,250 | 307,992 |
| China  | 159,799                               | 145,486 | 248,678 |
| India  | 50,414                                | 80,914  | 85,803  |
| Oman   | ***                                   | ***     | ***     |
| Subject sources                                | ***                                   | ***     | ***     |
| All other sources                              | 532,753                               | 422,531 | 566,138 |
| Total U.S. imports                             | ***                                   | ***     | ***     |
|  | <b>Value (1,000 dollars)</b>          |         |         |
| U.S. importers' U.S. imports from.--<br>Canada | 212,140                               | 255,741 | 240,432 |
| China  | 96,185                                | 80,839  | 106,660 |
| India  | 38,920                                | 60,124  | 56,927  |
| Oman   | ***                                   | ***     | ***     |
| Subject sources                                | ***                                   | ***     | ***     |
| All other sources                              | 401,483                               | 309,346 | 408,516 |
| Total U.S. imports                             | ***                                   | ***     | ***     |
|  | <b>Unit value (dollars per pound)</b> |         |         |
| U.S. importers' U.S. imports from.--<br>Canada | \$0.79                                | \$0.80  | \$0.78  |
| China  | 0.60                                  | 0.56    | 0.43    |
| India  | 0.77                                  | 0.74    | 0.66    |
| Oman   | ***                                   | ***     | ***     |
| Subject sources                                | ***                                   | ***     | ***     |
| All other sources                              | 0.75                                  | 0.73    | 0.72    |
| Total U.S. imports                             | ***                                   | ***     | ***     |

*Table continued on next page...*

**Table IV-2 Continued--**  
**PET resin: U.S. imports by source, 2012-14**

| Sources                        | Calendar year                        |      |      |
|--------------------------------|--------------------------------------|------|------|
|                                | 2012                                 | 2013 | 2014 |
|                                | <b>Share of quantity (percent)</b>   |      |      |
| U.S. imports from.--<br>Canada | 25.7                                 | 29.5 | 22.6 |
| China                          | 15.3                                 | 13.4 | 18.2 |
| India                          | 4.8                                  | 7.5  | 6.3  |
| Oman                           | ***                                  | ***  | ***  |
| Subject sources                | ***                                  | ***  | ***  |
| All other sources              | 51.0                                 | 39.0 | 41.5 |
| Total U.S. imports             | ***                                  | ***  | ***  |
|                                | <b>Share of value (percent)</b>      |      |      |
| U.S. imports from.--<br>Canada | 27.5                                 | 32.4 | 26.3 |
| China                          | 12.5                                 | 10.3 | 11.7 |
| India                          | 5.0                                  | 7.6  | 6.2  |
| Oman                           | ***                                  | ***  | ***  |
| Subject sources                | ***                                  | ***  | ***  |
| All other sources              | 52.0                                 | 39.2 | 44.6 |
| Total U.S. imports             | ***                                  | ***  | ***  |
|                                | <b>Ratio to production (percent)</b> |      |      |
| U.S. imports from.--<br>Canada | 4.7                                  | 5.7  | 5.7  |
| China                          | 2.8                                  | 2.6  | 4.6  |
| India                          | 0.9                                  | 1.4  | 1.6  |
| Oman                           | ***                                  | ***  | ***  |
| Subject sources                | ***                                  | ***  | ***  |
| All other sources              | 9.3                                  | 7.5  | 10.6 |
| Total U.S. imports             | ***                                  | ***  | ***  |

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

Table IV-3 presents data for U.S. imports of PET resin from the top nonsubject sources. The leading nonsubject source of PET resin imports is Mexico, which accounted for 29.4 percent of total imports in 2012, 19.6 percent in 2013, and 28.2 percent in 2014.

**Table IV-3**  
**PET resin: U.S. imports from nonsubject sources, 2012-14**

| Item                           | Calendar year           |         |         |
|--------------------------------|-------------------------|---------|---------|
|                                | 2012                    | 2013    | 2014    |
|                                | Quantity (1,000 pounds) |         |         |
| Mexico                         | 307,005                 | 212,080 | 384,706 |
| Taiwan                         | 74,594                  | 78,949  | 65,992  |
| Indonesia                      | 41,340                  | 39,684  | 49,310  |
| Pakistan                       | 27,230                  | 49,123  | 29,326  |
| Peru                           | 5,694                   | 4,425   | 15,691  |
| Egypt                          | 84                      | 251     | 8,441   |
| France                         | 12,018                  | 1,453   | 5,786   |
| Korea                          | 6,813                   | 11,077  | 3,334   |
| Russia                         | 0                       | 4,886   | 1,898   |
| Nigeria                        | 0                       | 0       | 434     |
| All other sources              | 57,974                  | 20,603  | 1,219   |
| Nonsubject sources             | 532,753                 | 422,531 | 566,138 |
| Value (1,000 dollars)          |                         |         |         |
| Mexico                         | 232,554                 | 148,768 | 278,741 |
| Taiwan                         | 56,646                  | 63,747  | 49,006  |
| Indonesia                      | 34,200                  | 31,627  | 40,060  |
| Pakistan                       | 19,640                  | 35,310  | 19,211  |
| Peru                           | 3,173                   | 2,247   | 7,767   |
| Egypt                          | 49                      | 164     | 5,565   |
| France                         | 7,478                   | 873     | 3,405   |
| Korea                          | 5,041                   | 8,044   | 2,183   |
| Russia                         | 0                       | 2,885   | 1,019   |
| Nigeria                        | 0                       | 0       | 200     |
| All other sources              | 42,703                  | 15,682  | 1,360   |
| Nonsubject sources             | 401,483                 | 309,346 | 408,516 |
| Unit value (dollars per pound) |                         |         |         |
| Mexico                         | 0.76                    | 0.70    | 0.72    |
| Taiwan                         | 0.76                    | 0.81    | 0.74    |
| Indonesia                      | 0.83                    | 0.80    | 0.81    |
| Pakistan                       | 0.72                    | 0.72    | 0.66    |
| Peru                           | 0.56                    | 0.51    | 0.49    |
| Egypt                          | 0.58                    | 0.65    | 0.66    |
| France                         | 0.62                    | 0.60    | 0.59    |
| Korea                          | 0.74                    | 0.73    | 0.65    |
| Russia                         | 0.00                    | 0.59    | 0.54    |
| Nigeria                        | 0.00                    | 0.00    | 0.46    |
| All other sources              | 0.74                    | 0.76    | 1.12    |
| Nonsubject sources             | 0.75                    | 0.73    | 0.72    |

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

## NEGLIGENCE

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.<sup>5</sup> 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.<sup>6</sup> 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 22.1 percent, those from China accounted for 5.6 percent, those from India accounted for 32.3 percent, and those from Oman accounted for 5.1 percent of total imports of PET resin.<sup>7</sup>

## 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.

Petitioners contend that all subject countries should be cumulated, as petitions were filed on the same day and there is a reasonable overlap of competition among subject imports from each country.<sup>8</sup>

The Canadian respondent argues that U.S. imports from Canada should not be cumulated with those of other countries for purposes of a threat of material injury determination because Canadian exports have different production, import and pricing trends, as well as operate under different conditions of competitions than the other countries subject

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<sup>5</sup> Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

<sup>6</sup> Section 771 (24) of the Act (19 U.S.C § 1677(24)).

<sup>7</sup> Based on official import statistics under HTS statistical reporting number 3907.60.0030.

<sup>8</sup> Petitioner's postconference brief, pp. 17-20.



to investigation.<sup>9</sup> <sup>10</sup> Specifically, it argues that Selenis has a constant production capacity that contrasted greatly from the other subject foreign producers.<sup>11</sup> In addition, it argues that its export trends differed from the other subject countries and had a low share of U.S. apparent consumption.<sup>12</sup> Finally, the Canadian respondent notes significantly higher average unit values and in contrast to the other countries, it is subject to the same supply conditions, such as similar raw material prices and the ability to supply the U.S. market during periods when the market is constrained, that are applicable to North America.<sup>13</sup>

The Chinese respondents argue that the Commission should not cumulate Chinese subject imports for purposes of its threat analysis because there are important differences in the conditions of competition of imports as well as different trends in import volumes and prices that distinguish PET resin imports from China from the PET resin imports from other subject countries.<sup>14</sup> The Chinese respondent points to contrasts in market participation, including a growing home market and barriers to entry, such as logistics, that do not apply to other countries, such as Canada.<sup>15</sup> Further, the Chinese respondents point to different pricing and volume trends for Chinese imports that stem from their lack of involvement in various segments of the PET resin market.<sup>16</sup> To support this contention, the Chinese respondents claim large participation in water bottle and strapping pricing categories and only participate in the “hot-fill” segment at very low levels.<sup>17</sup>

The Indian respondents argue the Commission should not cumulate for purposes of material injury or threat.<sup>18</sup> The Indian respondents claim limited overlap in production and customers between Indian imports and the domestic like product as well as other sources because Indian imports present little or no competition in the “hot-fill”, blended PET resin, strapping, and barrier nor extrusion blow molding segments, which they claim is evidenced by only competing in one of the four pricing product segments.<sup>19</sup> Further, Dhunseri claimed the inability to compete with large “tier one” customers in the United States because it has no

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<sup>9</sup> Selenis’ postconference brief, p. 7.

<sup>10</sup> Importer Ravago Holdings America, Inc. also contends that Canada should not be cumulated with the other subject countries on the basis of its unique geographical location and its ability to move product along unique channels of distribution, such as rail cars, compared to the other subject countries, Ravago’s postconference brief, pp. 10-11.

<sup>11</sup> Selenis’ postconference brief, p. 8.

<sup>12</sup> Selenis’ postconference brief, pp. 9-10.

<sup>13</sup> Selenis’ postconference brief, pp. 11-14.

<sup>14</sup> Chinese Producers’ postconference brief, p. 31.

<sup>15</sup> Chinese Producers’ postconference brief, pp. 31-33.

<sup>16</sup> The Chinese respondents comment that it would be important to distinguish between the trade data of each of the market segments in the collection of data via questionnaires if the Commission ultimately decides to continue the case to a final phase. Chinese Producers’ postconference brief, p. 34.

<sup>17</sup> Chinese Producers’ postconference brief, p. 36.

<sup>18</sup> Dhunseri postconference brief, p. 18; Reliance postconference brief, p. 22.

<sup>19</sup> Dhunseri postconference brief, pp. 18-19; Reliance postconference brief, p. 22.

ability to deliver the subject product via rail car.<sup>20</sup> With regard to the threat determination, the Indian respondents add a growing home market to a tiny U.S. volume and U.S. market share as well as stable imports since the last PET resin investigation in 2005.<sup>21</sup>

The Omani respondent did not address the issue of cumulation.

### Presence in the market

Table IV-4 presents data on the monthly entries of U.S. imports of PET resin, by source, during January 2012 – December 2014. U.S. imports from each source were present in each of the 36 months.

**Table IV-4**  
**PET resin: U.S. imports, monthly entries into the United States, by sources, January 2012-December 2014**

|      | Canada           | China | India | Oman | Subject sources | All other sources | All sources |
|------|------------------|-------|-------|------|-----------------|-------------------|-------------|
| Year | 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          |

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. During January 2012 – December 2014, the top Customs districts for U.S. PET resin imports were as follows:

- Canada: Detroit, MI (58.3 percent), Ogdensburg, NY (21.5 percent), and Pembina, ND (13.7 percent)
- China: Los Angeles, CA (57.7 percent), Seattle, WA (18.9 percent), and San Francisco, CA (10.3 percent)
- India: Los Angeles, CA (39.1 percent), Savannah, GA (14.9 percent), and San Francisco, CA (12.0 percent)
- Oman: New York, NY (33.6 percent), Charleston, SC (27.7 percent), and Savannah, GA (13.8 percent)
- All other sources: Laredo, TX (50.1 percent), Los Angeles, CA (12.5 percent), and Charleston, SC (7.6 percent)

As noted above, respondents argue that logistics and transportation costs create unique geographical market segments in the United States. The Chinese respondents indicated that

<sup>20</sup> Dhunseri postconference brief, p. 19.

<sup>21</sup> Dhunseri 20-21; Reliance postconference brief, pp. 25-26.

imports have a much larger presence in the western United States because most U.S. producers are generally located on the east coast.<sup>22</sup> 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.<sup>23</sup>

### **APPARENT U.S. CONSUMPTION**

Table IV-5 and figure IV-1 present data on apparent U.S. consumption for PET resin. As shown, apparent U.S. consumption, by quantity, declined by \*\*\* percent in 2013, increased by \*\*\* percent in 2014, and was \*\*\* percent higher in 2014 than in 2012. Apparent U.S. consumption, by value, declined in each year during 2012-14, falling by \*\*\* percent in 2013, by \*\*\* percent in 2014, and was \*\*\* percent lower in 2014 than in 2012.

### **U.S. MARKET SHARES**

U.S. market shares for PET resin are presented in table IV-6. U.S. producers' share of the domestic market, by quantity, decreased by \*\*\* percentage points from 2012 to 2014. In contrast, subject imports' share of the domestic market increased by \*\*\* percentage points from 2012 to 2014. Each of the subject countries' share of the domestic market increased from 2012 to 2014; however \*\*\* share increased the most (\*\*\* percentage points). Nonsubject sources' share, by quantity, increased \*\*\* percentage points between 2012 and 2014.

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<sup>22</sup> Conference transcript, p. 126 (Mendoza).

<sup>23</sup> Conference transcript, p. 98 (Jones).

**Table IV-5**  
**PET resin: U.S. shipments of domestic product, U.S. imports by sources, and apparent U.S. consumption, 2012-14**

| Item                                 | Calendar year                  |         |         |
|--------------------------------------|--------------------------------|---------|---------|
|                                      | 2012                           | 2013    | 2014    |
|                                      | <b>Quantity (1,000 pounds)</b> |         |         |
| U.S. producers' U.S. shipments       | ***                            | ***     | ***     |
| U.S. importers' U.S. imports from.-- |                                |         |         |
| Canada                               | 268,572                        | 319,250 | 307,992 |
| China                                | 159,799                        | 145,486 | 248,678 |
| India                                | 50,414                         | 80,914  | 85,803  |
| Oman                                 | ***                            | ***     | ***     |
| Subject sources                      | ***                            | ***     | ***     |
| All other sources                    | 532,753                        | 422,531 | 566,138 |
| Total U.S. imports                   | ***                            | ***     | ***     |
| Apparent U.S. consumption            | ***                            | ***     | ***     |
|                                      | <b>Value (1,000 dollars)</b>   |         |         |
| U.S. producers' U.S. shipments       | ***                            | ***     | ***     |
| U.S. importers' U.S. imports from.-- |                                |         |         |
| Canada                               | 212,140                        | 255,741 | 240,432 |
| China                                | 96,185                         | 80,839  | 106,660 |
| India                                | 38,920                         | 60,124  | 56,927  |
| Oman                                 | ***                            | ***     | ***     |
| Subject sources                      | ***                            | ***     | ***     |
| All other sources                    | 401,483                        | 309,346 | 408,516 |
| Total U.S. imports                   | ***                            | ***     | ***     |
| Apparent U.S. consumption            | ***                            | ***     | ***     |

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-1**  
**PET resin: Apparent U.S. consumption, 2012-14**

\* \* \* \* \*

**Table IV-6**  
**PET resin: U.S. consumption and market shares, 2012-14**

\* \* \* \* \*

## PART V: PRICING DATA

### FACTORS AFFECTING PRICES

#### Raw material costs

In these investigations, raw materials as a share of cost of goods sold varied from \*\*\* to \*\*\* percent between 2012 and 2014. Two raw materials, monoethylene glycol (MEG) and purified terephthalic acid (PTA), historically account for over 75 percent of the cost of producing PET resin.<sup>1</sup> Prices of both MEG and PTA have fallen in recent years, as shown in figure V-1. MEG prices fell by 18.1 percent over January 2012-December 2014, while PTA prices fell by 28.4 percent over the same period. The bulk of this decline came after August 2014, when global oil prices began to fall.<sup>2</sup> From January 2012 to August 2014, MEG prices had fallen only 4.5 percent while PTA prices had fallen 3.7 percent.

Petitioners described U.S. PTA prices as higher than global PTA prices, but added that with transportation costs, it was less expensive for U.S. producers to purchase PTA domestically than to import it.<sup>3</sup> Pacific Rim described U.S. PET resin producers as experiencing difficulties due to a fire at BP's South Carolina facility, the largest U.S. PTA supplier, in August 2014.<sup>4</sup>

**Figure V-1**  
**PET resin: Indexed prices of monoethylene glycol (MEG) and purified terephthalic acid (PTA), by month, January 2012-February 2015**

\* \* \* \* \*

Producers and importers were asked how the prices of the raw materials for PET resin had changed since January 1, 2012. Three producers and ten importers responded that raw materials prices had decreased while one producer and eight importers stated that they had fluctuated. The three producers that described falling raw materials prices also stated that PET resin prices had fallen more quickly than raw materials prices had. \*\*\* stated that its pricing formulas took into account raw material price declines. 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. Importers \*\*\* described falling oil prices as

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<sup>1</sup> 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).

<sup>2</sup> See \*\*\* for data on global oil prices.

<sup>3</sup> 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).

<sup>4</sup> Conference transcript, p. 93 (Behm). See also *Part II*.

driving down the price of raw materials and thus PET resin. However, \*\*\* stated that its margins had eroded to the break even point.

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

Transportation costs to the U.S. market were 0.6 percent<sup>5</sup> for PET resin from Canada, 9.3 percent for PET resin from China, 9.4 percent for PET resin from India, and 6.0 percent for PET resin from Oman.

### **U.S. inland transportation costs**

Four U.S. producers and 11 importers reported that they typically arrange transportation to their customers.<sup>6</sup> U.S. producers<sup>7</sup> reported that their U.S. inland transportation costs ranged from 3 to 6 percent while importers generally reported costs of 1 to 8 percent (although \*\*\* reported costs of 39 percent, \*\*\* reported costs of 30 percent, and \*\*\* reported costs of 11 percent).<sup>8</sup> \*\*\*.<sup>9</sup>

## **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.<sup>10</sup> Similarly, importer \*\*\* indicated that it usually reaches a one-year agreement with a customer in which both sides commit to a particular quantity, with price adjusting according to raw material price index movements.

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, as presented in table V-1. Importers reporting “other” methods named meeting competitive offers and pricing based on raw materials costs, including raw material prices reported by IHS and Chemdata.

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<sup>5</sup> Transportation costs were determined by comparing the 2014 c.i.f. value of imports to the 2014 Customs value of imports for HTS code 3907.60.00.30.

<sup>6</sup> One importer, \*\*\*, reported that its purchasers arrange transportation.

<sup>7</sup> \*\*\*.

<sup>8</sup> Three importers reported shipping from their point of importation, and seven reported shipping from storage.

<sup>9</sup> Staff telephone interview with \*\*\*.

<sup>10</sup> See conference transcript, p. 36 (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).

**Table V-1**  
**PET resin: U.S. producers' and importers' reported price setting methods, by number of responding firms<sup>1</sup>**

\* \* \* \* \*

Three U.S. producers indicated that short-term contracts could have durations of one to three months, and three U.S. producers indicated that long-term contracts could last for two to three years. Among importers, three indicated that short-term contracts were typically for one to two-and-a-half months, and one (\*\*\*) indicated that long-term contracts were for two years.

U.S. producers were evenly divided on whether short-term and annual contracts allowed price renegotiation or contained meet-or-release provisions. However, for long-term contracts, three producers agreed that contracts do allow price renegotiation and do have meet-or-release provisions. Producers also described contracts as either fixing quantity or fixing quantity and price. Few importers were able to answer questions about contract provisions. Those that were able to do so indicated that contracts did not allow for price renegotiation, could fix quantity, price, or both quantity and price, and did not typically have meet-or-release provisions for short-term contracts but might for longer-term contracts.

Petitioners stated that while contracts may be binding, by the last year of a contract, lower prices from competitors can allow purchasers to demand price concessions within a contract in order to obtain the next contract.<sup>11</sup>

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. Most producers reported that at least \*\*\* percent of their sales were under long-term contracts, except \*\*\* reported that \*\*\* were spot sales. Importers were somewhat more likely to report short-term contracts and spot sales than U.S. producers were.

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

\* \* \* \* \*

**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. Two U.S. producers and four importers reported quantity discounts, four U.S. producers and seven importers reported annual total volume discounts, and two U.S. producers and three importers reported other discounts, including early payment discounts, discounts for cash payments, and trimester-based discounts. \*\*\* reported that its volume discounts were typically \*\*\* for its largest purchasers, and based on price and volume. Ten importers reported no discounts.

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<sup>11</sup> Conference transcript, pp. 57-58 (Cullen and McNaull).

## PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value<sup>12</sup> of the following PET resin products<sup>13</sup> shipped to unrelated U.S. customers during 2012-14. Data were also requested from importers for the cost of PET resin products that they directly imported and used in their own production of other products.<sup>14</sup>

**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.

Four U.S. producers and 16 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.<sup>15</sup> Sales pricing data reported by these firms accounted for approximately \*\*\* percent of U.S. producers' U.S. shipments of product, \*\*\* percent of U.S. imports from Canada, \*\*\* percent of U.S. imports from China, \*\*\* percent of subject imports from India, and \*\*\* percent of subject

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<sup>12</sup> 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 \*\*\*.

<sup>13</sup> One distinction between the pricing products is the use of the product. Importer \*\*\* indicated it did not always know the use of the PET resin that it sold. See email from \*\*\*.

<sup>14</sup> Importer \*\*\* provided both sales and cost data. Based on its answers to question II-5 of its questionnaire (which show that it either sold the imported product or placed it in inventory), staff did not use its cost data. Similar, importers \*\*\* reported sales and cost data, but did not report any internal consumption. Staff did not use their cost data. Additionally, based on a staff telephone conversation with counsel for \*\*\*, staff has removed the cost data provided by \*\*\*, which did not actually directly import. See staff conversation with \*\*\*.

<sup>15</sup> Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision of these figures may be affected by rounding and producer or importer estimates. Occasional quarters of data from importers \*\*\* with small quantities and no values were removed by staff.



imports from Oman in 2014. Cost data for imports by end users accounted for approximately \*\*\* percent of U.S. imports from Canada, \*\*\* percent of U.S. imports from China, \*\*\* percent of subject imports from India, \*\*\* percent of subject imports from Oman in 2014.<sup>16</sup>

Price and cost data for products 1-4 are presented in tables V-3 to V-10 and figure V-2. Two importers noted that they imported product for multiple end uses, or did not know the end use of the product they imported.<sup>17</sup> As can be seen from the tables, there is limited variation between the prices of U.S. products 1, 2, 3, and 4, with all starting in the first quarter of 2012 at a price of \$\*\*\* per pound, falling to a price of \$\*\*\* per pound in the first quarter of 2014, and reaching \$\*\*\* per pound in the fourth quarter of 2014. Except for \*\*\*, the volumes of import cost data provided were usually low.

**Table V-3**

**PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 1<sup>1</sup> and margins of underselling/(overselling), by quarters, January 2012-December 2014**

\* \* \* \* \*

**Table V-4**

**PET resin: Weighted-average costs and quantities imported product 1<sup>1</sup> consumed in an end use, by quarters, January 2012-December 2014\**

\* \* \* \* \*

**Table V-5**

**PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 2<sup>1</sup> and margins of underselling/(overselling), by quarters, January 2012-December 2014**

\* \* \* \* \*

**Table V-6**

**PET resin: Weighted-average costs and quantities imported product 2<sup>1</sup> consumed in an end use, by quarters, January 2012-December 2014**

\* \* \* \* \*

**Table V-7**

**PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 3<sup>1</sup> and margins of underselling/(overselling), by quarters, January 2012-December 2014**

\* \* \* \* \*

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<sup>16</sup> Overall, cost data for the pricing products represented \*\*\* percent of all the pricing product data (price and cost) submitted by importers.

<sup>17</sup> See importers' questionnaire responses of \*\*\*.

**Table V-8**

**PET resin: Weighted-average costs and quantities imported product 3<sup>1</sup> consumed in an end use, by quarters, January 2012-December 2014**

\* \* \* \* \*

**Table V-9**

**PET resin: Weighted-average f.o.b. prices and quantities of domestic and imported product 4<sup>1</sup> and margins of underselling/(overselling), by quarters, January 2012-December 2014**

\* \* \* \* \*

**Table V-10**

**PET resin: Weighted-average costs and quantities imported product 4<sup>1</sup> consumed in an end use, by quarters, January 2012-December 2014**

\* \* \* \* \*

**Figure V-2**

**PET resin: Weighted-average prices, costs, and quantities of domestic and imported product, by quarters, January 2012-December 2014**

\* \* \* \* \*

### Price trends

PET resin prices and import costs decreased during 2012-14. Table V-11 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from \*\*\* to \*\*\* percent during 2012-14 while import price decreases (when there were 12 quarters of data) ranged from \*\*\* to \*\*\* percent. Trends in the cost data are usually in the same range when there are at least 10 quarters of data, although for some country-product combinations there are fewer quarters of data.

**Table V-11**

**PET resin: Summary of weighted-average f.o.b. prices and costs for products 1-4 from the United States and 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 83 of 129 instances (over 797 million pounds); margins of underselling ranged from 0.1 to 35.7 percent. In the remaining 46 instances (over 321 million pounds), prices for PET resin from Canada, China, India, and Oman were between 0.1 and 26.3 percent above prices for the domestic product.

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.<sup>18</sup>

**Table V-12**

**PET resin: Instances of underselling/overselling and the range and average of margins, by country, January 2012-December 2014**

| Source       | Underselling       |                                |                          |                        |               |
|--------------|--------------------|--------------------------------|--------------------------|------------------------|---------------|
|              | Number of quarters | Quantity <sup>1</sup> (pounds) | Average margin (percent) | Margin range (percent) |               |
|              |                    |                                |                          | Min                    | Max           |
| Canada       | ***                | ***                            | ***                      | ***                    | ***           |
| China        | ***                | ***                            | ***                      | ***                    | ***           |
| India        | ***                | ***                            | ***                      | ***                    | ***           |
| Oman         | ***                | ***                            | ***                      | ***                    | ***           |
| <b>Total</b> | <b>83</b>          | <b>797,745,755</b>             | <b>6.2</b>               | <b>0.1</b>             | <b>35.7</b>   |
| Source       | (Overselling)      |                                |                          |                        |               |
|              | Number of quarters | Quantity <sup>1</sup> (pounds) | Average margin (percent) | Margin range (percent) |               |
|              |                    |                                |                          | Min                    | Max           |
| Canada       | ***                | ***                            | ***                      | ***                    | ***           |
| China        | ***                | ***                            | ***                      | ***                    | ***           |
| India        | ***                | ***                            | ***                      | ***                    | ***           |
| Oman         | ***                | ***                            | ***                      | ***                    | ***           |
| <b>Total</b> | <b>46</b>          | <b>321,020,977</b>             | <b>(4.5)</b>             | <b>(0.1)</b>           | <b>(26.3)</b> |

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

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

### LOST SALES AND LOST REVENUE

The Commission requested 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.<sup>19</sup> 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

<sup>18</sup> Postconference brief of petitioners, pp. 27-28.

<sup>19</sup> 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.

involved \*\*\* million pounds of PET resin.<sup>20</sup> 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 V-13

#### PET resin: U.S. producers' lost sales allegations

\* \* \* \* \*

### Table V-14

#### PET resin: U.S. producers' lost revenue allegations

\* \* \* \* \*

### Additional Comments

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<sup>20</sup> \*\*\*. 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.

## 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. 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 \*\*\*.

**Table VI-1**  
**PET resin: Results of operations of U.S. producers, 2012-14**

\* \* \* \* \*

**Table VI-2**  
**PET resin: Selected results of operations of U.S. producers, by firm, 2012-14**

\* \* \* \* \*

On a per-unit basis, the net sales value declined by \$\*\*\* from 2012 to 2014, while raw material costs declined by \$\*\*\*, total COGS declined by \$\*\*\*, and SG&A expenses increased by \$\*\*\* during this time. Thus, per-unit total operating costs and expenses declined by about \$\*\*\* from 2012 to 2014. The \*\*\*.<sup>1</sup> 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

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<sup>1</sup> As previously discussed in this report, a significant amount of PET resin is sold using pricing formulas based on fluctuations in raw materials costs.

during this time.<sup>2 3</sup> SG&A expenses, which accounted for \*\*\* percent of overall operating costs and expenses during 2012-14, increased on a per-unit basis and as a ratio to net sales.<sup>4</sup>

The petitioners were asked several questions related to raw material purchases.

According to DAK, \*\*\*.<sup>5</sup>

According to M&G, \*\*\*.<sup>6</sup>

According to Nan Ya, \*\*\*.<sup>7</sup>

All three petitioners reported that \*\*\*.<sup>8</sup>

### Variance analysis

The variance analysis presented in table VI-3 is based on the data in table VI-1.<sup>9</sup> The analysis shows that the decline in operating income from 2012 to 2014 is primarily attributable to \*\*\*.

**Table VI-3**  
**PET resin: Variance analysis on the operations of U.S. producers, 2012-14**

\* \* \* \* \*

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<sup>2</sup> Petitioners reported that raw material costs include \*\*\*. Email from \*\*\*, April 10, 2015.

<sup>3</sup> \*\*\*. Email from \*\*\*, March 27, 2015. \*\*\*. Email from \*\*\*, March 26, 2015.

\*\*\*. Emails from \*\*\*, April 13, 2015. \*\*\*. Emails from \*\*\*, April 10, 2014.

<sup>4</sup> \*\*\*. Emails from \*\*\*, April 1 and April 2, 2015. \*\*\*. Emails from \*\*\*, April 1 and April 2, 2015.

\*\*\*.

<sup>5</sup> Email from \*\*\*, April 10, 2015. *See also* footnote 3 in this section of the report.

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.* *See also* footnote 3 in this section of the report.

<sup>8</sup> Petitioners' postconference brief, exhibits 1-3, and email from \*\*\*, April 10, 2015.

<sup>9</sup> 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.

## Capital expenditures, research and development expenses, and total assets

The responding firms' aggregate data on capital expenditures, research and development ("R&D") expenses, and total assets 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 declined from 2012 to 2014. The majority of reported capital expenditures reflect the data reported by \*\*\*. According to \*\*\*.<sup>10</sup> \*\*\*,<sup>11</sup> <sup>12</sup> The total assets utilized in the production, warehousing, and sale of PET resin increased from \$\*\*\* in 2012 to \$\*\*\* in 2014.

**Table VI-4**  
**PET resin: Capital expenditures, R&D expenses, and total assets of U.S. producers, 2012-14**

\* \* \* \* \*

### Capital and investment

The Commission requested U.S. producers of PET resin to describe any actual or potential negative effects of imports of threaded rod from the subject countries on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Responses by U.S. producers follow.

#### Actual Negative Effects:

\* \* \* \* \*

#### Potential Negative Effects:

\* \* \* \* \*

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<sup>10</sup> U.S. producers' questionnaire response, question III-13b.

<sup>11</sup> U.S. producers' questionnaire response, question III-13b.

<sup>12</sup> \*\*\*. Email from \*\*\*, April 13, 2015. \*\*\*.





## PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

*In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors<sup>1</sup>--*

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

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

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

Information on the nature of the 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.

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

## THE INDUSTRY IN CANADA

The Commission issued foreign producers' or exporters' questionnaires to one firm in Canada believed to produce and/or export PET resin.<sup>3</sup> Selenis Canada ("Selenis") provided the Commission with a questionnaire response and accounted for all production of PET resin in Canada. 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 \*\*\*.<sup>4</sup>

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 does 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 \*\*\*.

**Table VII-3**  
**PET resin: Selenis' overall capacity and production on the same equipment as subject production, 2012-14**

\* \* \* \* \*

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<sup>3</sup> This firm was identified through a review of information submitted in the petition and contained in proprietary Customs records.

<sup>4</sup> Selenis questionnaire response, section II-3.

## 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.<sup>5</sup> Useable responses to the Commission's questionnaire were received from seven firms: 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"). 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-4 presents summary information on the PET resin operations of the responding producers and exporters in China.

**Table VII-4**  
**PET Resin: Data for producers in China, 2012-14**

\* \* \* \* \*

Table VII-5 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-5**  
**PET resin: Data for producers in China, 2012-14, and projected 2015-16**

\* \* \* \* \*

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<sup>5</sup> These firms were identified through a review of information submitted in the petition and contained in proprietary Customs records.

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-6, only a small percentage of other products is produced on the same equipment that produces the subject PET resin. Two firms, \*\*\* reported producing other products on the same equipment. \*\*\* 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-6**  
**PET resin: Chinese producers’ overall capacity and production on the same equipment as subject production, 2012-14**

\* \* \* \* \*

### 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.<sup>6</sup> Useable responses to the Commission’s questionnaire were received from two firms: Reliance Industries Limited (“Reliance”) and Dhunseri Petrochem Limited (“Dhunseri”). These firms’ exports to the United States accounted for approximately \*\*\* percent of U.S. imports of PET resin from India during 2012-14. 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-7 presents summary information on the PET resin operations of the responding producers and exporters in India.

**Table VII-7**  
**PET resin: Summary data on firms in India, 2012-14**

\* \* \* \* \*

Table VII-8 presents information on the PET resin operations of responding producers and exporters in India. Capacity increased by \*\*\* percent between 2012 and 2014, and is projected to increase an additional by \*\*\* percent by 2016. Dhunseri reported a primary

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<sup>6</sup> These firms were identified through a review of information submitted in the petition and contained in proprietary Customs records.

reason for the capacity increase was \*\*\*. Dhunseri reported a \*\*\*. Projected capacity increases are the result \*\*\*.

Production of PET resin increased by \*\*\* percent between 2012 and 2014, and is projected to increase another \*\*\* percent by 2016. The increase in projected production is the result of the anticipated plant expansions noted above. Capacity utilization has remained around \*\*\* percent during 2012-13, then decreased to a low of \*\*\* percent in 2014.

Commercial shipments to firms’ home market represented the largest share of total shipments at \*\*\* percent in 2012, \*\*\* percent in 2013, and \*\*\* percent in 2014. Commercial shipments in the home market are projected to drop to \*\*\* percent by 2016. Exports to the United States, as a share of total shipments, increased from \*\*\* percent in 2012 to \*\*\* percent in 2014 and are projected to decrease to \*\*\* percent in 2016. Exports to other markets (\*\*\*) increased irregularly from \*\*\* percent to \*\*\* percent from 2012 to 2014 and are projected to reach \*\*\* percent of total shipments by 2016.

**Table VII-8**  
**PET resin: Data for producers in India, 2012-14, and projected 2015-16**

\* \* \* \* \*

As shown in table VII-9, \*\*\*. \*\*\* also reported that although there is some cost to switching between production of subject PET resin and \*\*\*.

Overall aggregated capacity of the two responding firms increased by \*\*\* percent in 2013 and decreased by \*\*\* percent from 2013 to 2014, ending \*\*\* percent higher than 2012.

**Table VII-9**  
**PET resin: Indian producers’ overall capacity and production on the same equipment as subject production, 2012-14**

\* \* \* \* \*

### 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.<sup>7</sup> Octal Saoc FZC (“Octal”) provided the Commission with a questionnaire response and accounted for all PET resin production in Oman. Table VII-10 presents summary information on the PET resin operations of the Octal in Oman.

**Table VII-10**  
**PET resin: Summary data on firms in Oman, 2012-14**

\* \* \* \* \*

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<sup>7</sup> This firm were identified through a review of information submitted in the petition and contained in proprietary Customs records.

Table VII-11 presents information on the PET resin operations of Octal. Octal \*\*\*. Production of PET resin increased by \*\*\* percent between 2012 and 2014. Octal reported this increase in production was a result of opening their second plant, detailed above. Capacity utilization decreased irregularly by \*\*\* percentage points between 2012 and 2014 and is projected to remain at the 2014 level through 2016.

Exports to the United States, as a share of total shipments increased by \*\*\* percentage points between 2012 and 2014, while exports to other markets (\*\*\*) decreased by \*\*\* percentage points. The share of exports to the United States is projected to stay the same in 2015 and 2016.

**Table VII-11**  
**PET resin: Data for Octal's operations in Oman, 2012-14, and projected 2015-16**

\* \* \* \* \*

As shown in VII-12, Octal produces \*\*\* on the same equipment and machinery used in production of PET resin. Octal reported \*\*\*.

Octal reported that it \*\*\*.

**Table VII-12**  
**PET resin: Octal's overall capacity and production on the same equipment as subject production, 2012-14**

\* \* \* \* \*

**COMBINED DATA FOR THE INDUSTRIES IN THE SUBJECT COUNTRIES**

Table VII-13 presents aggregate data for the reporting producers of PET resin in Canada, China, India, and Oman.

**Table VII-13**  
**PET resin: Data for producers in subject countries, 2012-14, and projected 2015-16**

\* \* \* \* \*

**U.S. INVENTORIES OF IMPORTED MERCHANDISE**

Table VII-14 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. Imports from India and Oman accounted for \*\*\* percent of this increase. \*\*\*.

**Table VII-14**  
**PET resin: U.S. importers' end-of-period inventories of imports by source, 2012-14**

\* \* \* \* \*

### **U.S. IMPORTERS' OUTSTANDING ORDERS**

The Commission requested importers to indicate whether they imported or arranged for the importation of PET resin from Canada, China, India, Oman, and all other sources after December 31, 2014 (Table VII-15). Sixteen importers reported outstanding orders.

**Table VII-15**  
**PET resin: U.S. importers' outstanding orders subsequent to December 31, 2014**

\* \* \* \* \*

### **ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS**

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 safe guard 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.

### **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.’”<sup>8</sup>

According to published sources, global capacity in 2011 was \*\*\*. Asia, and in particular China, accounts for \*\*\* of the global production capacity. North America changed from a \*\*\*

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<sup>8</sup> *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).



percent share in 1990 to a \*\*\* percent share in 2011. Asia’s production changed from \*\*\* percent in 1990 to \*\*\* percent in 2011.<sup>9</sup> In 2001 China accounted for \*\*\* percent of Asian capacity, and in 2011 accounted for \*\*\* percent of all Asian capacity. Table VII-16 presents capacity, production, trade and consumption data on a regional basis. Table VII-17 shows the top ten world producers, which accounts for \*\*\* of the global PET resin production capacity.<sup>10</sup> Figure VII-1 shows regional consumption shares for 2011. Table VII-18 presents export data for the larger producing countries. Throughout 2012-14, the United States has been among the largest exporters of PET resin in the world.

**Table VII-16**

**PET resin: World capacity, production, imports, exports, and consumption 2011, projected capacity and consumption 2016, and annual growth rate, 2011 and 2016 (forecast), by region/country**

\* \* \* \* \*

**Table VII-17**

**PET resin: Top ten world producers of PET Resin—2011**

\* \* \* \* \*

**Figure VII-1**

**PET resin: World Consumption –2011**

\* \* \* \* \*

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<sup>9</sup> *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 6.

<sup>10</sup> *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 6.

**Table VII-18**  
**PET resin: Global exports, by country, 2012-14**

| Reporting Country              | Calendar Year     |                   |                   |
|--------------------------------|-------------------|-------------------|-------------------|
|                                | 2012              | 2013              | 2014              |
| <b>Quantity (1,000 pounds)</b> |                   |                   |                   |
| China                          | 3,018,307         | 4,332,418         | 5,078,899         |
| Taiwan                         | 1,802,053         | 1,660,163         | 1,616,610         |
| South Korea                    | 1,748,415         | 1,804,666         | 1,592,721         |
| Mexico                         | 1,141,689         | 794,813           | 1,006,813         |
| Lithuania                      | 925,639           | 940,325           | 957,771           |
| India                          | 544,911           | 1,033,263         | 903,277           |
| Thailand                       | 824,364           | 890,659           | 831,264           |
| Netherlands                    | 627,977           | 843,400           | 783,566           |
| Germany                        | 881,378           | 876,235           | 758,905           |
| Indonesia                      | 470,598           | 446,739           | 736,479           |
| United States                  | 745,519           | 606,860           | 590,998           |
| Spain                          | 513,850           | 407,224           | 509,498           |
| Belgium                        | 285,833           | 321,638           | 414,271           |
| Canada                         | 345,930           | 380,158           | 383,194           |
| Malaysia                       | 325,907           | 326,674           | 367,124           |
| All other sources              | 459,357           | 341,080           | 249,926           |
| <b>Total</b>                   | <b>16,859,754</b> | <b>17,991,447</b> | <b>19,086,515</b> |
| <b>Value (1,000 dollars)</b>   |                   |                   |                   |
| China                          | 1,961,925         | 2,816,709         | 2,904,181         |
| 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           | 628,761           |
| India                          | 358,242           | 676,124           | 517,248           |
| Thailand                       | 541,103           | 591,955           | 499,738           |
| Netherlands                    | 478,873           | 653,794           | 534,361           |
| Germany                        | 636,304           | 643,499           | 507,197           |
| Indonesia                      | 316,813           | 295,847           | 409,128           |
| United States                  | 629,450           | 551,512           | 510,510           |
| Spain                          | 371,861           | 304,449           | 336,115           |
| Belgium                        | 238,806           | 266,253           | 300,422           |
| Canada                         | 265,009           | 295,815           | 283,656           |
| Malaysia                       | 251,612           | 241,989           | 228,946           |
| All other sources              | 1,821,098         | 1,614,349         | 1,596,546         |
| <b>Total</b>                   | <b>11,680,439</b> | <b>12,568,600</b> | <b>11,910,801</b> |

*Table continued on following page.*

**Table VII-18--Continued**  
**PET resin: Global exports, by country, 2012-14**

| Reporting Country                     | Calendar Year |      |      |
|---------------------------------------|---------------|------|------|
|                                       | 2012          | 2013 | 2014 |
| <b>Unit Value (dollars per pound)</b> |               |      |      |
| China                                 | 0.65          | 0.65 | 0.57 |
| 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 |
| India                                 | 0.66          | 0.65 | 0.57 |
| Thailand                              | 0.66          | 0.66 | 0.60 |
| Netherlands                           | 0.76          | 0.78 | 0.68 |
| Germany                               | 0.72          | 0.73 | 0.67 |
| Indonesia                             | 0.67          | 0.66 | 0.56 |
| United States                         | 0.84          | 0.91 | 0.86 |
| Spain                                 | 0.72          | 0.75 | 0.66 |
| Belgium                               | 0.84          | 0.83 | 0.73 |
| Canada                                | 0.77          | 0.78 | 0.74 |
| Malaysia                              | 0.77          | 0.74 | 0.62 |
| Average of all reporting countries    | 0.66          | 0.68 | 0.61 |

Source: *Global Trade Atlas*, data run on 04/08/15, based on HTS subheading 3907.60. For the unit value average, missing values or values of zero were not computed in the average. *Global Trade Atlas* allows input at the 6 digit HTS level only, and therefore the HTS numbers under 3907.60 include the two categories at the ten digit level of 3907.60.30, packaging grade PET and 3907.60.70, other.

**Mexico**

Table VII-19 shows Mexican producers and their capacities.

**Table VII-19**  
**PET Resin: Mexican producers**

\* \* \* \* \*

Mexico is a net exporter of PET solid-state resin, and the major export destinations are \*\*\*<sup>11</sup> Table VII-20 shows supply and demand for 2010 and 2011.<sup>12</sup>

**Table VII-20**  
**PET Resin: Mexican Supply and Demand**

\* \* \* \* \*

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 2011 and 2016 (forecast) are shown in table VII-21. The average annual growth rate from 2011-2016 is \*\*\* percent, which is driven by the consumption of \*\*\*.

**Table VII-21**  
**PET Resin: Mexican Consumption**

\* \* \* \* \*

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<sup>11</sup> *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 50.

<sup>12</sup> *Chemical Economics Handbook: Polyethylene Terephthalate (PET) Solid-State Resins*, SRI Consulting, 2012, p. 48.

**APPENDIX A**

***FEDERAL REGISTER* NOTICES**



The Commission makes available notices relevant to its investigations and reviews on its website, [www.usitc.gov](http://www.usitc.gov). In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

| Citation                      | Title   | Link  |
|-------------------------------|---|---|
| 80 FR 13889<br>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> | <a href="http://www.gpo.gov/fdsys/pkg/FR-2015-03-17/pdf/2015-05963.pdf">http://www.gpo.gov/fdsys/pkg/FR-2015-03-17/pdf/2015-05963.pdf</a> |
| 80 FR 18369<br>April 6, 2015  | <i>Certain Polyethylene Terephthalate Resin From Canada, the People's Republic of China, India, and the Sultanate of Oman: Initiation of Countervailing Duty Investigations</i>                           | <a href="http://www.gpo.gov/fdsys/pkg/FR-2015-04-06/pdf/2015-07835.pdf">http://www.gpo.gov/fdsys/pkg/FR-2015-04-06/pdf/2015-07835.pdf</a> |
| 80 FR 18376<br>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>                          | <a href="http://www.gpo.gov/fdsys/pkg/FR-2015-04-06/pdf/2015-07835.pdf">http://www.gpo.gov/fdsys/pkg/FR-2015-04-06/pdf/2015-07835.pdf</a> |





**APPENDIX B**

**CALENDAR OF THE PUBLIC STAFF CONFERENCE**



## CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

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

**Subject:** Certain Polyethylene Terephthalate Resin ("PET Resin")  
from Canada, China, India, and Oman

**Inv. Nos.:** 701-TA-531-533 and 731-TA-1270-1273 (Preliminary)

**Date and Time:** March 31, 2015 - 9:30 am

Sessions were held in connection with these preliminary investigations in Courtroom A (Room 100), 500 E Street, S.W., Washington, DC.

### **OPENING REMARKS:**

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

### **In Support of the Imposition of Antidumping and Countervailing Duty Orders:**

Kelley Drye & Warren  
Washington, DC  
on behalf of

DAK Americas, LLC  
M&G Chemicals  
Nan Ya Plastics

**John McNaull**, Vice President, 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

**W. Bradley Hudgens**, Economic Consultant, Georgetown  
Economic Services, LLC

**Paul C. Rosenthal** )  
**Kathleen W. Cannon** ) – OF COUNSEL  
**Brooke Ringel** )

**In Opposition to the Imposition of  
Antidumping and Countervailing Duty Orders:**

Morris, Manning & Martin LLP  
Washington, DC  
on behalf of

Chinese Producers

**Dale Behm**, Managing Director, Pacific Rim Traders

**Julie C. Mendoza** )  
 ) – OF COUNSEL  
**R. Will Planert** )

Arent Fox LLP  
Washington, DC  
on behalf of

Reliance Industries, Ltd.

**Anil Rajvanshi**, Senior Executive Vice President, Reliance  
Industries, Ltd.

**John M. Gurley** ) – OF COUNSEL

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

Kutak Rock LLP  
Washington, DC  
on behalf of

Selenis Canada, Inc.

**Jose Antonio Alarcon**, General Manager and Director of  
Business and Development, Selenis Canada, Inc.

**Bruno Guilbault**, Director of Finance Selenis Canada, Inc.

**John W. Jones**, Commercial Director, Selenis Canada, Inc.

**Vincent Routhier**, Counsel for Selenis Canada, Inc.,  
DS Welch Bussieres LLP

**Lizbeth R. Levinson** ) – OF COUNSEL

Neville Peterson LLP  
Washington, DC  
on behalf of

Ravago Holdings America, Inc.

**Thomas Glasrud**, Managing Director, Ravago Holdings  
America, Inc.

**John M. Peterson** ) – OF COUNSEL

Steptoe & Johnson LLP  
Washington, DC  
on behalf of

Dhunseri Petrochem Limited

**Gautam Singh Rathore**, Group President, Marketing,  
Dhunseri Petrochem Limited

**Suman Kumar Tetarbe**, Consultant, Dhunseri Petrochem  
Limited

**Susan Esserman** ) -- COUNSEL

**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”)

**Daniel L. Porter** ) – OF COUNSEL

**REBUTTAL/CLOSING REMARKS:**

Petitioners (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)  
Respondents (**Julie C. Mendoza**, Morris, Manning & Martin LLP)

**-END-**

**APPENDIX C**  
**SUMMARY DATA**





Table C-1

PET resin: Summary data concerning the U.S. market, 2012-14

(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 |         |         | Calendar year  |         |         |
|                                    | 2012          | 2013    | 2014    | 2012-14        | 2012-13 | 2013-14 |
| U.S. consumption quantity:         |               |         |         |                |         |         |
| Amount.....                        | ***           | ***     | ***     | ***            | ***     | ***     |
| Producers' share (fn1).....        | ***           | ***     | ***     | ***            | ***     | ***     |
| Importers' share (fn1):            |               |         |         |                |         |         |
| Canada.....                        | ***           | ***     | ***     | ***            | ***     | ***     |
| China.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| India.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| Oman.....                          | ***           | ***     | ***     | ***            | ***     | ***     |
| Subject sources.....               | ***           | ***     | ***     | ***            | ***     | ***     |
| All others sources.....            | ***           | ***     | ***     | ***            | ***     | ***     |
| Total imports.....                 | ***           | ***     | ***     | ***            | ***     | ***     |
| U.S. consumption value:            |               |         |         |                |         |         |
| Amount.....                        | ***           | ***     | ***     | ***            | ***     | ***     |
| Producers' share (fn1).....        | ***           | ***     | ***     | ***            | ***     | ***     |
| Importers' share (fn1):            |               |         |         |                |         |         |
| Canada.....                        | ***           | ***     | ***     | ***            | ***     | ***     |
| China.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| India.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| Oman.....                          | ***           | ***     | ***     | ***            | ***     | ***     |
| Subject sources.....               | ***           | ***     | ***     | ***            | ***     | ***     |
| All others sources.....            | ***           | ***     | ***     | ***            | ***     | ***     |
| Total imports.....                 | ***           | ***     | ***     | ***            | ***     | ***     |
| U.S. importers' U.S. imports from: |               |         |         |                |         |         |
| Canada:                            |               |         |         |                |         |         |
| Quantity.....                      | 268,572       | 319,250 | 307,992 | 14.7           | 18.9    | (3.5)   |
| Value.....                         | 212,140       | 255,741 | 240,432 | 13.3           | 20.6    | (6.0)   |
| Unit value.....                    | \$0.79        | \$0.80  | \$0.78  | (1.2)          | 1.4     | (2.5)   |
| Ending inventory quantity.....     | ***           | ***     | ***     | ***            | ***     | ***     |
| China:                             |               |         |         |                |         |         |
| Quantity.....                      | 159,799       | 145,486 | 248,678 | 55.6           | (9.0)   | 70.9    |
| Value.....                         | 96,185        | 80,839  | 106,660 | 10.9           | (16.0)  | 31.9    |
| Unit value.....                    | \$0.60        | \$0.56  | \$0.43  | (28.7)         | (7.7)   | (22.8)  |
| Ending inventory quantity.....     | ***           | ***     | ***     | ***            | ***     | ***     |
| India:                             |               |         |         |                |         |         |
| Quantity.....                      | 50,414        | 80,914  | 85,803  | 70.2           | 60.5    | 6.0     |
| Value.....                         | 38,920        | 60,124  | 56,927  | 46.3           | 54.5    | (5.3)   |
| Unit value.....                    | \$0.77        | \$0.74  | \$0.66  | (14.1)         | (3.8)   | (10.7)  |
| Ending inventory quantity.....     | ***           | ***     | ***     | ***            | ***     | ***     |
| Oman:                              |               |         |         |                |         |         |
| Quantity.....                      | ***           | ***     | ***     | ***            | ***     | ***     |
| Value.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| Unit value.....                    | ***           | ***     | ***     | ***            | ***     | ***     |
| Ending inventory quantity.....     | ***           | ***     | ***     | ***            | ***     | ***     |
| Subject sources:                   |               |         |         |                |         |         |
| Quantity.....                      | ***           | ***     | ***     | ***            | ***     | ***     |
| Value.....                         | ***           | ***     | ***     | ***            | ***     | ***     |
| Unit value.....                    | ***           | ***     | ***     | ***            | ***     | ***     |
| Ending inventory quantity.....     | ***           | ***     | ***     | ***            | ***     | ***     |
| All other source:                  |               |         |         |                |         |         |
| Quantity.....                      | 532,753       | 422,531 | 566,138 | 6.3            | (20.7)  | 34.0    |
| Value.....                         | 401,483       | 309,346 | 408,516 | 1.8            | (22.9)  | 32.1    |
| Unit value.....                    | \$0.75        | \$0.73  | \$0.72  | (4.2)          | (2.8)   | (1.4)   |
| 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**

(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 |      |      | Calendar year  |         |         |
|  | 2012          | 2013 | 2014 | 2012-14        | 2012-13 | 2013-14 |
| U.S. producers':                                 |               |      |      |                |         |         |
| Average capacity quantity.....                   | ***           | ***  | ***  | ***            | ***     | ***     |
| Production quantity.....                         | ***           | ***  | ***  | ***            | ***     | ***     |
| Capacity utilization (fn1).....                  | ***           | ***  | ***  | ***            | ***     | ***     |
| U.S. shipments:                                  |               |      |      |                |         |         |
| Quantity.....                                    | ***           | ***  | ***  | ***            | ***     | ***     |
| Value.....                                       | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit value.....                                  | ***           | ***  | ***  | ***            | ***     | ***     |
| Export shipments:                                |               |      |      |                |         |         |
| Quantity.....                                    | ***           | ***  | ***  | ***            | ***     | ***     |
| Value.....                                       | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit value.....                                  | ***           | ***  | ***  | ***            | ***     | ***     |
| Ending inventory quantity.....                   | ***           | ***  | ***  | ***            | ***     | ***     |
| Inventories/total shipments (fn1).....           | ***           | ***  | ***  | ***            | ***     | ***     |
| Production workers.....                          | ***           | ***  | ***  | ***            | ***     | ***     |
| Hours worked (1,000s).....                       | ***           | ***  | ***  | ***            | ***     | ***     |
| Wages paid (\$1,000).....                        | ***           | ***  | ***  | ***            | ***     | ***     |
| Hourly wages (dollars).....                      | ***           | ***  | ***  | ***            | ***     | ***     |
| Productivity (pounds per hour).....              | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit labor costs (dollars per 1,000 pounds)..... | ***           | ***  | ***  | ***            | ***     | ***     |
| Net sales:                                       |               |      |      |                |         |         |
| Quantity.....                                    | ***           | ***  | ***  | ***            | ***     | ***     |
| Value.....                                       | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit value.....                                  | ***           | ***  | ***  | ***            | ***     | ***     |
| Cost of goods sold (COGS).....                   | ***           | ***  | ***  | ***            | ***     | ***     |
| Gross profit or (loss).....                      | ***           | ***  | ***  | ***            | ***     | ***     |
| SG&A expenses.....                               | ***           | ***  | ***  | ***            | ***     | ***     |
| Operating income or (loss).....                  | ***           | ***  | ***  | ***            | ***     | ***     |
| Capital expenditures.....                        | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit COGS.....                                   | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit SG&A expenses.....                          | ***           | ***  | ***  | ***            | ***     | ***     |
| Unit operating income or (loss).....             | ***           | ***  | ***  | ***            | ***     | ***     |
| COGS/sales (fn1).....                            | ***           | ***  | ***  | ***            | ***     | ***     |
| Operating income or (loss)/sales (fn1).....      | ***           | ***  | ***  | ***            | ***     | ***     |

Notes:

fn1.--Report data are in percent and period changes are in percentage points.

fn2.--Undefined.

Source: Compiled from data submitted in response to Commission questionnaires and official import statistics under HTS statistical reporting number 3907.60.0030

**APPENDIX D**

**ALTERNATE APPARENT CONSUMPTION & U.S. MARKET SHARES**



**Appendix D-1**  
**PET resin: Apparent U.S. consumption, 2012-14**

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**Appendix D-2**  
**PET resin: Market shares, 2012-14**

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