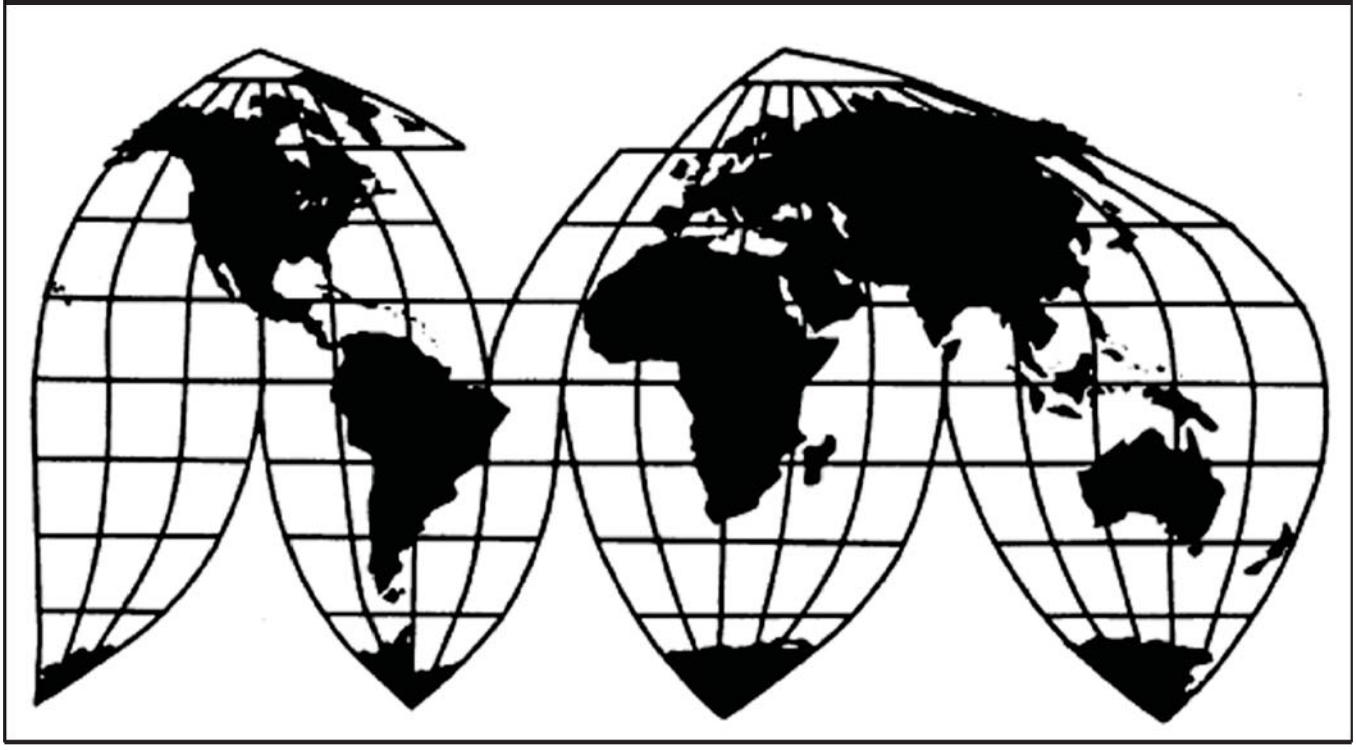
# Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland

Investigation Nos. 731-TA-1334-1337 (Final)

**Publication 4717** **August 2017**

## U.S. International Trade Commission



**Washington, DC 20436**

# U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted.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 No. 731-TA-1334-1337 (Final)

Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland

## DETERMINATION

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that an industry in the United States is materially injured by reason of imports of emulsion styrene-butadiene rubber from Brazil, Korea, Mexico, and Poland, provided for in subheading 4002.19.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").[2] [3]

## BACKGROUND

The Commission, pursuant to section 735(b) of the Act (19 U.S.C. 1673d(b)), instituted these investigations effective July 21, 2016, following receipt of a petition filed with the Commission and Commerce by Lion Elastomers, LLC, Port Neches, Texas, and East West Copolymer, LLC, Baton Rouge, Louisiana. The Commission scheduled the final phase of the investigations following notification of preliminary determinations by Commerce that imports of emulsion styrene-butadiene rubber from Brazil, Korea, Mexico, and Poland were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of March 13, 2017 (82 FR 13503). The hearing was held in Washington, DC, on June 29, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

[2] Vice Chairman David S. Johanson and Commissioner Meredith M. Broadbent dissenting.

[3] The Commission also finds that imports subject to Commerce's affirmative critical circumstances determination are not likely to undermine seriously the remedial effect of the antidumping duty order on Korea.

## Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of emulsion styrene-butadiene rubber ("ESBR") from Brazil, Korea, Mexico, and Poland found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value. We also find that critical circumstances do not exist with respect to the imports from Korea for which Commerce made an affirmative critical circumstances determination.[1]

## I. Background

The petitions in these investigations were filed on July 21, 2016 by two domestic producers of ESBR: Lion Elastomers LLC ("Lion Elastomers") and East West Copolymer LLC ("East West").[2] Lion Elastomers and East West submitted a joint prehearing brief. On June 22, 2017, East West, which had declared Chapter 11 bankruptcy on April 7, 2017, terminated its representation by counsel and withdrew its support for the petition.[3] Lion Elastomers, the remaining petitioner, appeared at the hearing accompanied by counsel and submitted a posthearing brief.

The following respondent entities participated actively in the final phase of these investigations: Arlanxeo Brasil S.A., a producer of subject merchandise in Brazil, and Arlanxeo USA LLC, an importer of subject merchandise from Brazil (collectively "Arlanxeo"); Industrias Negromex S.A. de C.V., a producer of subject merchandise in Mexico, and its affiliated U.S. importer of subject merchandise from Mexico, INSA LLC (collectively "Negromex"); Kumho Petrochemical Co., Ltd. ("Kumho"), a producer of subject merchandise in Korea; and Synthos SA ("Synthos"), a producer of subject merchandise in Poland. Arlanxeo, Negromex, Kumho, and Synthos appeared at the hearing and submitted joint prehearing and posthearing briefs. In addition to the joint submissions, Kumho filed a separate prehearing brief and Synthos filed a separate posthearing brief.

U.S. industry data are based on the questionnaire responses provided by Lion Elastomers and Goodyear in the final phase of these investigations and, unless otherwise noted, the questionnaire response provided by East West in the preliminary phase of these

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[1] Vice Chairman Johanson and Commissioner Broadbent determine that an industry in the United States is not materially injured or threatened with material injury by reason of subject imports from Brazil, Korea, Mexico, and Poland found by Commerce to be sold in the United States at less than fair value. They join sections I-IV.B.5 of these views. *See* Dissenting Views of Vice Chairman David S. Johanson and Commissioner Meredith M. Broadbent.

[2] The Goodyear Tire & Rubber Company ("Goodyear"), the only other currently operating U.S. ESBR producer, ***. CR/PR at Table III-1. Although unions representing employees at East West, Lion Elastomers, and Goodyear did not participate in the final phase of these investigations, they indicated support for the petitions in the preliminary phase of these investigations. *Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland*, Inv. Nos. 731-TA-1334-1337 (Preliminary), USITC Pub. 4636 at 3 (Sept. 2016) ("Preliminary Determinations").

[3] Hearing Tr. at 45 (McGrath); Respondents Posthearing Br. at Exs. 1 & 2.

investigations and limited trade and financial data for East West provided by petitioner's counsel.[4] Altogether, the three domestic producers accounted for all U.S. production of ESBR in 2016.[5] U.S. import data are based on importer questionnaire responses that have been supplemented with official Commerce import statistics.[6] The Commission received questionnaire data from 15 importers accounting for 100 percent of imports of subject merchandise from Brazil in 2016, 92.2 percent of imports of subject merchandise from Korea, 100 percent of imports of subject merchandise from Mexico, 99.9 percent of imports of subject merchandise from Poland, and 79.5 percent of imports of ESBR from nonsubject countries.[7] The Commission received responses to its foreign producer questionnaires from one producer of subject merchandise in Brazil, two producers of subject merchandise in Korea, one producer of subject merchandise in Mexico, and one producer of subject merchandise in Poland.[8] These foreign producers account for all known production of subject merchandise in the respective subject countries.[9]

## II. Domestic Like Product

### A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[10] 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."[11] 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."[12]

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[13] No single factor is

[4] Confidential Report ("CR") at I-5, Public Report ("PR") at I-4. East West did not provide a questionnaire response in the final phase of the investigations. CR at I-5 n.9, PR at I-4 n.9.

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

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

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

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

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

[10] 19 U.S.C. § 1677(4)(A).

[11] 19 U.S.C. § 1677(4)(A).

[12] 19 U.S.C. § 1677(10).

[13] *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 (Continued...)

dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[14] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[15] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,[16] the Commission determines what domestic product is like the imported articles Commerce has identified.[17]

### B. Product Description

Commerce defined the scope of the imported merchandise under investigation as follows:

> . . . ESBR in primary forms, bales, granules, crumbs, pellets, powders, plates, sheets, strip, etc. ESBR consists of non-pigmented rubbers and oil-extended non-pigmented rubbers, both of which contain at least one percent of organic acids from the emulsion polymerization process. ESBR is produced and sold in accordance with a generally accepted set of product specifications issued by the International Institute of Synthetic Rubber Producers ("IISRP"). The scope of these investigations covers grades of ESBR included in the IISRP 1500 and 1700 series of synthetic rubbers. The 1500 grades are light in color and are often

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(…Continued)
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).

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

[15] *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.").

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

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

> described as "Clear" or "White Rubber." The 1700 grades are oil-extended and thus darker in color, and are often called "Brown Rubber." Specifically excluded from the scope of these investigations are products which are manufactured by blending ESBR with other polymers, high styrene resin masterbatch, carbon black masterbatch (*i.e.*, IISRP 1600 series and 1800 series) and latex (an intermediate product).[18]

The scope of the current investigations includes only two of the several series of emulsion styrene-butadiene rubber identified in the IISRP standards, the cold-polymerized 1500 and 1700 series of products.[19] The 1500 series is considered a "neat" or pure form of ESBR, whereas the 1700 series includes a petroleum-based extender oil that facilitates the eventual processing of the ESBR that are extruded, mixed, and rolled into rubber goods.[20]

ESBR is predominantly used in the production of car and light truck tires and truck tire retread compounds. Additionally, it is used in a variety of other non-tire products, including conveyor belts, shoe soles, some types of hoses, roller coverings, and flooring. It may also be used as a complement to natural rubber and various synthetic rubbers in end uses such as tires and tire components.[21]

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[18] *Emulsion Styrene-Butadiene Rubber from Brazil*, 82 Fed. Reg. 33048 (July 19, 2017) (final determination of sales at less than fair value); *Emulsion Styrene-Butadiene Rubber from Korea*, 82 Fed. Reg. 33045 (July 19, 2017) (final determination of sales at less than fair value); *Emulsion Styrene-Butadiene Rubber from Mexico*, 82 Fed. Reg. 33062 (July 19, 2017) (final determination of sales at less than fair value); *Emulsion Styrene-Butadiene Rubber from Poland*, 82 Fed. Reg. 33061 (July 19, 2017) (final determination of sales at less than fair value). Commerce explained that the product subject to these investigations is currently classifiable under U.S. HTS numbers 4002.19.0015 and 4002.19.0019. ESBR is described by the Chemical Abstract Services ("CAS") Registry No. 9003-55-8. This CAS number also refers to other types of styrene butadiene rubber. Commerce stated that although it provided the HTS numbers and CAS registry number for convenience and customs purposes, the written description of the scope of these investigations is dispositive. 82 Fed. Reg. at 33048; 82 Fed. Reg. at 33047; 82 Fed. Reg. at 33064; 82 Fed. Reg. at 33062.

[19] The term "ESBR" refers to the products described in the scope, and the term "emulsion styrene-butadiene rubber" refers to the broader category of products that includes both the ESBR corresponding to the scope of the investigations and products excluded from the scope definition. Other emulsion styrene-butadiene rubber products that are outside the scope definition include the 1000 series (a hot-polymerized series of emulsion styrene-butadiene rubber); the 1900 series (a high-styrene synthetic rubber that is used in a variety of non-tire applications); and the 1600 and 1800 series (carbon black masterbatch ("CBMB" )). Also falling outside the scope definition are the 1200 series (solution styrene-butadiene rubber ("SSBR")) of styrene-butadiene rubber products. CR at I-10-12, 14-15, PR at I-7-10.

[20] CR at I-12, PR at I-9.

[21] CR at I-13-14, PR at I-9-10.

### C. Analysis

In the preliminary determinations, the Commission defined a single domestic like product coextensive with Commerce's scope definition.[22] The Commission found that both the 1500 and 1700 series ESBR were used for the same purposes and were manufactured using the same basic raw materials, manufacturing facilities, production processes, and employees.[23] It also found that the record did not support the inclusion in the domestic like product of three products that were outside the scope of the investigations: carbon black masterbatch ("CBMB"), solution styrene-butadiene rubber ("SSBR"), and natural rubber.[24] The Commission consequently defined a single domestic like product, consisting of the 1500 and 1700 series ESBR, a product category that was coextensive with the scope.[25]

The record in the final phase of these investigations does not contain any new information concerning the domestic like product factors.[26] No party has argued that the Commission should adopt a definition of the domestic like product that is different from that in the preliminary determinations. Therefore, for the reasons set forth in the preliminary determinations, we define a single domestic like product consisting of the 1500 and 1700 series ESBR, coextensive with the scope.

## III. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[27] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise

[22] Preliminary Determinations, USITC Pub. 4636 at 10.

[23] Preliminary Determinations, USITC Pub. 4636 at 6-7.

[24] Preliminary Determinations, USITC Pub. 4636 at 7-10. The Commission found that CBMB, SSBR, and natural rubber possess different physical characteristics than ESBR and are produced using different manufacturing processes. The Commission also found that the products are sold at different price levels and are perceived by producers and purchasers to be different products. Consequently, the Commission found that there was a clear dividing line between ESBR within the scope and CBMB, SSBR, and natural rubber. *See id.*

[25] Preliminary Determinations, USITC Pub. 4636 at 10.

[26] *See generally* CR at I-8-18, PR at I-5-13.

[27] 19 U.S.C. § 1677(4)(A).

or which are themselves importers.[28] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[29]

Petitioner and respondents ask the Commission to define the domestic industry as all U.S. producers of ESBR.[30] Respondents assert that appropriate circumstances do not exist to exclude any related party producer from the domestic industry.[31]

One domestic producer, ***, is a related party because it imported subject merchandise from ***.[32] *** is ***, accounting for *** percent of U.S. ESBR production in 2016, *** that year.[33] *** only imports of subject merchandise occurred in *** when it imported *** pounds of subject ESBR from ***, which was equivalent to *** percent of its production that year.[34] These imports consisted of certain grades of ESBR that it did not produce domestically.[35] ***.[36] These facts indicate that the firm's principal interest is in domestic production. We therefore find that appropriate circumstances do not exist to exclude *** as a related party.

Consequently, we define the domestic industry as all U.S. producers of the domestic like product. During the period of investigation, there were four such producers, Lion Elastomers, Goodyear, Ashland Inc. ("Ashland"), and East West.[37]

## IV. Cumulation[38]

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[28] *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).

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

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

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

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

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

(5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326-31 (Ct. Int'l. Trade 2015); *see also Torrington Co. v. United States*, 790 F. Supp. at 1168.

[30] Petitioner Prehearing Br. at 3; Respondents Prehearing Br. at 4.

[31] Respondents Prehearing Br. at 4-6.

[32] CR/PR at Table III-9.

[33] CR/PR at Table III-1; CR at III-9, PR at III-5.

[34] CR/PR at Table III-9.

[35] *** U.S. Importer Questionnaire Response at II-4 (May 2017).

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

[37] Lion Elastomers acquired Ashland's Port Neches, Texas facility in December 2014 and East West ceased operations on March 31, 2017 and filed for Chapter 11 bankruptcy on April 7, 2017. CR at III-3, VI-1, PR at III-3, VI-1.

[38] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise (Continued...)

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corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)). The statute further provides that subject imports from a single country which comprise less than 3 percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than 7 percent of the volume of all such merchandise imported into the United States. 19 U.S.C. § 1677(24)(A)(ii). In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative), the statute indicates that the negligibility limits are 4 percent and 9 percent, rather than 3 percent and 7 percent. 19 U.S.C. § 1677(24)(B). In the final phase of these investigations, U.S. import data for all subject and nonsubject sources are based on importer questionnaire responses that have been supplemented with official Commerce import statistics on imports entering under HTS number 4002.19.0015 and, for Korea only, also under HTS number 4002.19.0019. CR at I-6 n.12, PR at I-4 n.12. Based on these data, subject imports from Brazil accounted for *** percent of all ESBR imports in July 2015 through June 2016, the 12-month period that precedes the filing of the petitions, subject imports from Korea accounted for *** percent, subject imports from Mexico accounted for *** percent, and subject imports from Poland accounted for *** percent. CR/PR at Table IV-4. Each of these figures exceeds the applicable 3 percent threshold. We therefore find that subject imports from Brazil, Korea, Mexico, and Poland are not negligible.

Synthos argues that subject imports from Poland come close to the applicable 3 percent negligibility threshold and requests that the Commission consider alternative methods of evaluating the denominator for the negligible imports analysis to ensure that it accounts for all imports of merchandise within the scope. Synthos Posthearing Br. at 1. It observes that in addition to HTS number 4002.19.0015, subject imports were also classified by importers under HTS numbers ***. It asks the Commission to consider the data from the Customs Net Importer File ("CNIF") and include imports under these other subheadings. Additionally, it asks the Commission to consider official U.S. import statistics for imports entering under HTS number 4002.19.0015 plus other tariff categories as appropriate in determining negligibility as it had done as an alternative methodology in the preliminary phase of these investigations. Synthos Poshearing Br. at 2. As previously discussed, however, the questionnaire data accounted for 100 percent of subject imports from Brazil in 2016, 92.2 percent of imports of subject merchandise from Korea, 100 percent of subject imports from Mexico, 99.9 percent of subject imports from Poland, and 79.5 percent of imports of ESBR from nonsubject countries. CR at I-6, PR at I-4. Relying on such data supplemented with official import statistics provides a more accurate measure of total imports than the alternative methodologies Synthos advocates. One of these alternative analyses, which calculated total imports using official import statistics for all countries except China and GTIS/GTA export data for China under a broad HTS code that included out-of-scope merchandise, was included in the preliminary phase report. The Commission found in the preliminary determinations that even if this methodology were used, subject imports from Poland exceed the statutory negligibility threshold. Preliminary Determinations, USITC Pub. 4636 at 12 n.64; Confidential Preliminary Determinations, EDIS Doc. 590745 at 17 n.64. Using the other methodology that Synthos advocates, subject imports from Poland still exceed the statutory negligibility threshold once out-of-scope merchandise is excluded from the calculation of total imports. Specifically, the importers that classified imports of ESBR under 4002.19.0016 and 4002.60.000 reported doing so in error. CR/PR at IV-
(Continued...)

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

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

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

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

(4) whether the subject imports are simultaneously present in the market.[39]

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.[40] Only a "reasonable overlap" of competition is required.[41]

Petitioner argues that the Commission should cumulatively assess imports from all subject countries as it did in the preliminary phase of the investigations.[42] Respondents state

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1 n.3. Using importer questionnaire responses and proprietary Customs records for imports that entered under HTS numbers 4002.19.0015 and 4002.19.0019, subject imports from Poland accounted for *** percent of all ESBR imports in July 2015 through June 2016. CR at IV-11 n.17, PR at IV-5 n.17.

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

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

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

[42] Petitioner Prehearing Br. at 5-6.

that they do not oppose cumulation for purposes of the Commission's present material injury analysis.[43]

We cumulate subject imports from Brazil, Korea, Mexico, and Poland for our analysis because the statutory criteria for cumulation are satisfied. As an initial matter, the antidumping duty petitions with respect to all four countries were filed on the same day, July 21, 2016.[44] Additionally, as discussed below, we find a reasonable overlap of competition among ESBR produced in Brazil, Korea, Mexico, Poland, and the United States.

*Fungibility*. The domestic industry and importers of subject merchandise from Brazil, Korea, Mexico, and Poland supplied both 1500 and 1700 series ESBR, which are manufactured according to IISRP industry specifications, to the U.S. market.[45] A majority of responding U.S. producers and purchasers reported that ESBR imports from the subject countries are "always" or "frequently" interchangeable with each other and with the domestic like product, and a majority of responding importers reported that ESBR imports from the subject countries are "frequently" or "sometimes" interchangeable with each other and with the domestic like product.[46] Most purchasers reported that ESBR imports from the subject countries were comparable with each other and with the domestic like product on most of 16 specified purchasing factors.[47]

*Channels of Distribution*. The majority of the domestic industry's sales in the merchant market are to end users (particularly tire manufacturers), and to a lesser degree, the domestic industry sells to distributors. Importers of subject merchandise from Brazil, Korea, Mexico, and Poland also sell ESBR primarily, if not exclusively, to end users and in substantial part to tire manufacturers.[48]

*Geographic Overlap*. The domestic like product and ESBR imported from the subject countries were sold in overlapping regions of the United States. All were sold in the Midwest, Southeast, Central Southwest, Pacific Coast, and some were sold in additional overlapping regions.[49]

*Simultaneous Presence in Market*. The domestic like product and ESBR imported from Brazil, Korea, and Mexico were present in the U.S. market in each month between January 2014 and March 2017. Imports of ESBR from Poland were present in the U.S. market for each month during this time period except July 2014 and December 2016.[50]

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[43] Respondents Prehearing Br. at 3.

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

[45] CR at I-9, PR at I-6; CR/PR at Appendix E. A greater share of imports from Brazil and Poland consisted of the 1500 series of ESBR. *See id.*

[46] CR/PR at Table II-11.

[47] CR/PR at Table II-10. Majorities of purchasers found the domestic product superior to subject imports from Korea and Poland in terms of delivery time. Half of all responding purchasers found the domestic product superior to subject imports from Poland in technical support/service. *Id*.

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

[49] CR/PR at Table II-2; *see also* CR/PR at Table IV-5 (based on customs border of entry data, the majority of ESBR imports from each subject country entered in the South during the period of investigation).

[50] CR/PR at Table IV-5.

*Conclusion*. The record shows that subject imports from each subject country are fungible with the domestic like product and each other, that subject imports from each subject country and the domestic like product are sold in similar channels of distribution and in similar geographic markets, and have been simultaneously present in the U.S. market for most of the period of investigation. In light of the foregoing, we find that there is a reasonable overlap of competition between the domestic like product and imports from each subject country and between imports from each subject country and we cumulate subject imports from each subject country.

## V. Material Injury by Reason of Subject Imports

Based on the record in the final phase of these investigations, we find that an industry in the United States is materially injured by reason of imports of ESBR from Brazil, Korea, Mexico, and Poland that Commerce has found to be sold in the United States at less than fair value.

### A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[51] 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.[52] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[53] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[54] 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."[55]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[56] it does not define the phrase "by reason of," indicating that this aspect of the injury

[51] 19 U.S.C. §§ 1671d(b), 1673d(b). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[52] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[53] 19 U.S.C. § 1677(7)(A).

[54] 19 U.S.C. § 1677(7)(C)(iii).

[55] 19 U.S.C. § 1677(7)(C)(iii).

[56] 19 U.S.C. §§ 1671d(a), 1673d(a).

analysis is left to the Commission's reasonable exercise of its discretion.[57] 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.[58]

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.[59] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[60] Nor does

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[57] *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), *aff'g,* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

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

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

[60] 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*

(Continued...)

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.[61] It is clear that the existence of injury caused by other factors does not compel a negative determination.[62]

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."[63] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[64]

The Federal Circuit's decisions in *Gerald Metals, Bratsk*, and *Mittal Steel* all involved cases where the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[65] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit

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(…Continued)
*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.").

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

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

[63] *Mittal Steel*, 542 F.3d at 877-78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[64] *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.").

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

to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

*Mittal Steel* clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[66] 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.[67]

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.[68] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[69]

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

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

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[66] *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).

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

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

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

### 1. Captive Production

The domestic industry captively consumes a portion of its production of the domestic like product in the manufacture of downstream articles. Accordingly, we have considered the applicability of the statutory captive production provision.[70] No party argues that the provision applies.[71]

*Threshold Criterion*. The captive production provision can be applied only if, as a threshold matter, significant production of the domestic like product is internally transferred and significant production is sold in the merchant market. The domestic industry internally consumed between *** percent and *** percent of its ESBR and transferred up to *** percent of its ESBR to related firms between 2014 and interim 2017.[72] The domestic industry sold between *** percent and *** percent of its ESBR production on the merchant market in this period.[73] We find that both the internal consumption and merchant market segments constitute significant portions of the market and that the threshold criterion for application of the captive production provision has been met.

*First Statutory Criterion*. We also determine that the first statutory criterion has been met. This criterion focuses on whether any of the domestic like product that is transferred internally for further processing is in fact sold on the merchant market.[74] No U.S. producer in these investigations reported diverting ESBR intended for internal consumption to the merchant market.[75]

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

(iv) CAPTIVE PRODUCTION – If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that-

> (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product, and
> (II) the domestic like product is the predominant material input in the production of that downstream article.

The SAA indicates that where a domestic like product is transferred internally for the production of another article coming within the definition of the domestic like product, such transfers do not constitute internal transfers for the production of a "downstream article" for purposes of the captive production provision. SAA at 853.

[71] Respondents Prehearing Br. at 6-7; Petitioner Prehearing Br. at 9.

[72] CR/PR at Table III-6. ***. CR/PR at Table VI-1 n.2. *** used the majority of ESBR it internally consumed for the downstream production of tires. The majority of ESBR it ***. CR at VI-2, PR at VI-1.

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

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

[75] CR at III-16, PR at III-7.

*Second Statutory Criterion*. In applying the second statutory criterion, we generally consider whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product.[76] This criterion is not satisfied. ESBR accounted for *** percent of the finished cost of the downstream products – tires – produced from internally consumed ESBR.[77]

*Conclusion*. Because the second criterion is not satisfied, we find that the captive production provision does not apply. We nonetheless consider, as a condition of competition, that a significant portion of domestic production is captively consumed.

### 2. Demand Considerations

Demand for ESBR is generally driven by the demand for tires, primarily demand for replacement tires and to a lesser degree for tires that original equipment manufacturers ("OEMs") mount on new vehicles.[78] ESBR is also used to produce conveyor belts, hosing, shoes, flooring, and mechanical goods.[79]

Both petitioner and respondents state that demand for ESBR decreased over the period of investigation.[80] They point to the reduced demand for end-use products, such as replacement tires, off-the-road tires, and conveyor belts, as reasons for the decline in demand. They also state that the increased use of SSBR in place of ESBR (particularly in new tires, and less frequently in replacement tires) contributed to the decline in demand.[81]

Apparent U.S. consumption of ESBR declined from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016.[82]

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

[77] CR at III-16, PR at III-7.

[78] CR at II-13, PR at II-8. Over 70 percent of ESBR is used in the production of tires. CR at II-13-14, PR at II-8; Respondents Prehearing Br. at 7-8. Replacement tires account for 80 percent of the U.S. tire market and OEM tires account for approximately 20 percent. CR at II-13, PR at II-8. The largest responding purchasers of ESBR during 2014-16 were ***. CR at II-2, PR at II-1.

[79] CR at II-14, PR at II-8.

[80] Petitioner Prehearing Br. at 11; Respondents Prehearing Br. at 7-8. *** responding domestic producers, two of 14 responding importers, and four of 16 responding purchasers reported that demand for ESBR in the United States declined since January 1, 2014. CR/PR at Table II-4.

[81] Petitioner Prehearing Br. at 11; Respondents Prehearing Br. at 7-8; Hearing Tr. at 20 (Zeringue), 33 (Szamosszeggi), 57-60 (Rikhoff, Zeringue), 107-08 (Plaza), 136, 174-75 (Pauken).

[82] CR/PR at Table IV-8. Apparent U.S. consumption was lower in interim 2017 at *** pounds than in interim 2016 at *** pounds. *See id.*

### 3. Supply Considerations

Between January 2014 and March 2017, the domestic industry and imports from subject and nonsubject sources supplied the U.S. market.

The domestic industry was the largest supplier of ESBR to the U.S. market during the period of investigation. Its market share increased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016.[83] During the period of investigation, there were four domestic producers: Goodyear, which *** approximately *** of its total shipments,[84] Lion Elastomers, Ashland, and East West. Lion Elastomers and East West underwent several changes in operations during this period.[85] In April 2014, East West acquired from Lion Copolymer Holdings (the parent of Lion Elastomers) ("Lion Copolymer") the ESBR production facility located in Baton Rouge, Louisiana, which closed in December 2013.[86] Lion Elastomers, after having left the ESBR market upon closing and selling the Baton Rouge plant to East West, re-entered the market in December 2014, when it reached an agreement with Ashland to purchase its facility located in Port Neches, Texas.[87] Finally, East West closed the Baton Rouge plant in March 2017 and filed for Chapter 11 bankruptcy in April 2017. Lion Elastomers purchased East West's assets, including the Baton Rouge plant, in May 2017 and is currently assessing the condition of those assets.[88]

Cumulated subject imports were the second largest source of supply. Their share of the market decreased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016.[89] One producer of subject merchandise in Brazil (Arlanxeo), two producers of subject merchandise in Korea (LG Chem and Kumho), one producer of subject merchandise in Mexico (Negromex), and one producer of subject merchandise in Poland (Synthos), accounted for all known production of subject merchandise in the respective subject countries during the period of investigation.[90]

Nonsubject imports were the smallest source of supply to the U.S. ESBR market. Their share of the market increased from *** percent in 2014 to *** percent in 2015, before decreasing to *** percent in 2016.[91] Germany was the largest individual nonsubject source of ESBR from 2014 to 2016, and China was also a substantial nonsubject source.[92]

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[83] CR/PR at Table IV-8. The domestic industry's market share was lower in interim 2017 at *** percent than in interim 2016 at *** percent. *See id.*

[84] CR at III-9, PR at III-5.

[85] CR at III-2-4, PR at III-2-3.

[86] CR at III-2-4, PR at III-2-3.

[87] CR at III-3, PR at III-2.

[88] CR at III-3, PR at III-2.

[89] CR/PR at Table IV-8. Cumulated subject imports' share of the market was higher in interim 2017 at *** percent than in interim 2016 at *** percent. *See id.*

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

[91] CR/PR at Table IV-8. Nonsubject imports' share of the market was higher in interim 2017 at *** percent than in interim 2016 at *** percent.

[92] CR/PR at Table IV-2.

### 4. Substitutability

The record indicates that there is a moderate-to-high degree of substitutability between domestically produced ESBR and ESBR imported from subject sources.[93] As discussed above, the 1500 and 1700 series ESBR are manufactured according to IISRP industry specifications.[94] Moreover, a majority of responding U.S. producers and purchasers reported that ESBR imports from the subject countries are "always" or "frequently" interchangeable with each other and with the domestic like product, and a majority of responding importers reported that ESBR imports from the subject countries are "frequently" or "sometimes" interchangeable with each other and with the domestic like product.[95] Most purchasers also reported that ESBR imports from the subject countries were comparable with each other and with the domestic like product on most of 16 specified purchasing factors.[96]

Additionally, price plays an important role in purchasing decisions, although quality and availability are important as well. Sixteen of 20 purchasers reported that price was a "very important" factor in purchasing decisions.[97] Purchasers listed quality most frequently as the first-most important factor when identifying the top three most important factors in purchasing decisions.[98] They listed price, quality, and availability most frequently as the second-most important factors and price most frequently as the third-most important factor.[99] When asked about the significance of differences other than price in purchasing decisions, U.S. producers were split between the significance of non-price differences as being "always" or "never" significant, most importers reported that non-price factors are "sometimes" significant, and the majority of purchasers stated that non-price factors are either "always" or "never" significant.[100]

### 5. Raw Materials and Contract Pricing Mechanisms

The primary raw materials for ESBR production are styrene and butadiene. Raw material costs represented *** percent of the domestic industry's cost of goods sold ("COGS") in 2014, *** percent in 2015, *** percent in 2016, *** percent in interim 2016 and *** percent in interim 2017.[101] Between January 2014 and December 2016, the cost of styrene declined *** percent and the cost of butadiene declined *** percent. From December 2016 to March

[93] CR at II-18, PR at II-13.
[94] CR at I-12, PR at I-9.
[95] CR/PR at Table II-11.
[96] CR/PR at Table II-10.
[97] CR/PR at Table II-8. All 20 purchasers reported that availability was a "very important" factor in purchasing decisions. *See id.*
[98] CR/PR at Table II-7.
[99] CR/PR at Table II-7.
[100] CR/PR at Table II-13.
[101] CR/PR at Table VI-1.

2017, the cost of styrene increased *** percent and the cost of butadiene increased *** percent.[102]

Domestic producers and importers reported selling *** of their ESBR through annual contracts, although *** ESBR sales involved spot market transactions.[103] Sales of ESBR for use in tires, which account for the majority of sales, are made through annual contracts that are negotiated in the fourth quarter for the upcoming year.[104] Contracts contain pricing formulas that generally consist of two components: (1) the variable component that is tied to published prices of styrene and butadiene and (2) the fixed component (also known as the "conversion fee" or "adder"), which covers producers' other material costs, fixed overhead costs, and a profit margin.[105] The variable component may differ among contracts based upon the published benchmark prices used (that may be based on different world regions such as Asia, Europe, or North America), the lag periods used, and the percentage factors assigned to each raw material.[106] The fixed component of the pricing formulas also may vary based upon the rate that is negotiated during contract discussions.[107] [108]

### C. Volume of Cumulated 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."[109]

Cumulated subject imports held a market share of approximately 20 percent during the period of investigation. The quantity of cumulated subject imports from Brazil, Korea, Mexico, and Poland decreased from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016.[110] The market share of cumulated subject imports decreased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016.[111]

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[102] CR at V-1, PR at V-1; CR/PR at V-1.

[103] CR at V-4, PR at V-2; CR/PR at Table V-2 (indicating that *** percent of the domestic industry's sales were pursuant to annual contracts and *** percent were spot market transactions and that *** percent of importers' sales involved annual contracts and *** percent involved spot market transactions).

[104] CR at I-13, V-5, PR at I-9, V-3; Hearing Tr. at 11 (McGrath), 21 (Zeringue), 40 (Szamosszeggi); Respondents Prehearing Br. at 19.

[105] Hearing Tr. at 21-22 (Zeringue); Respondents Prehearing Br. at 16.

[106] Respondents Prehearing Br. at 16-17; Hearing Tr. at 122-24 (Prusa); Petitioner Posthearing Br. at Attachment 5; Respondents Final Comments at 4-5.

[107] Hearing Tr. at 96-97 (Pauken), 181-82 (Sigler); Petitioner Posthearing Br. at 2.

[108] Vice Chairman Johanson and Commissioner Broadbent have made negative determinations and do not join the remainder of the opinion. *See* their Dissenting Views.

[109] 19 U.S.C. § 1677(7)(C)(i).

[110] CR/PR at Table IV-2. The volume of cumulated subject imports was lower in interim 2017 at *** pounds than in interim 2016 at *** pounds. *See id.*

[111] CR/PR at Table IV-8. The market share of cumulated subject imports was higher in interim 2017 at *** percent than in interim 2016 at *** percent. *See id.*

Although the quantity and market share of cumulated subject imports decreased between 2014 and 2016, respondents and petitioner acknowledge that the volume of cumulated subject imports increased from 2013 to 2014.[112] Respondents attribute the increase in cumulated subject imports to the supply disruption caused by the closure of the Baton Rouge plant in December 2013 while petitioner acknowledges that some cumulated subject imports were pulled into the U.S. market due to this disruption but that there were additional important reasons for the increase in cumulated subject imports.[113] We observe that although the Baton Rouge plant reopened in April 2014 and apparent U.S. consumption declined from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016,[114] cumulated subject imports remained at elevated levels in the U.S. market in 2015 and 2016.[115] Further, there was global surplus ESBR production capacity during the period of investigation and the parties agree that an oversupply of ESBR existed in the global market during this period; we find that this oversupply situation added to the attractiveness of the U.S. market to cumulated subject imports.[116] Consequently, even though demand declined and the Baton Rouge plant reopened, cumulated subject imports did not meaningfully retreat from the U.S. market during the period of investigation.

In light of the foregoing, we find that the volume of cumulated subject imports is significant on an absolute basis and relative to apparent U.S. consumption.

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[112] Petitioner Prehearing Br. at 15 (stating that subject imports *** from 2013 to 2014); Negromex Postconference Br. at 11-12 (stating that between 2013 and 2014, the U.S. market experienced the largest and only increase in subject import volume).

[113] Respondents argue that cumulated subject imports were critical in filling the void in supply after Lion Copolymer abruptly closed the Baton Rouge plant in December 2013. Respondents Prehearing Br. at 22; Respondents Posthearing Br. at 3-4, Attachment 1; Respondents Final Comments at 1; Hearing Tr. at 15-16 (Sjoberg), 93, 135-36 (Pauken). Although petitioner acknowledges that some subject imports were pulled into the U.S. market due to the supply disruption caused by the Baton Rouge plant's closure, it argues that global oversupply conditions, subject producers' deteriorating home markets, and declines in ESBR exports to third country markets were also reasons subject producers increased ESBR exports to the U.S. market and explains why subject imports remained in the U.S. market long after production resumed at the Baton Rouge plant. Petitioner Petitioner Prehearing Br. at 36-37; Posthearing Br. at Attachment 1, p.2; Hearing Tr. at 33-36 (Szamosszeggi), 51-54 (Rikhoff). Petitioner contends that U.S. customers chose to purchase ESBR from subject producers rather than Ashland and Goodyear, which were operational in 2014 with excess capacity, and nonsubject producers because subject imports were being sold at ***. Petitioner Posthearing Br. at 7.

[114] CR/PR at Table C-1. Apparent U.S. consumption was lower in interim 2017 at *** pounds than in interim 2016 at *** pounds. *See id.*

[115] The domestic industry had sufficient capacity to supply apparent U.S. consumption during the period of investigation; its capacity utilization rate was only *** percent in 2014, *** percent in 2015, and *** percent in 2016, and was lower in interim 2017 at *** percent than in interim 2016 at *** percent. Specifically, the domestic industry's capacity was *** pounds in 2014 and *** pounds in 2015 and 2016, and was *** pounds in both interim 2016 and interim 2017. CR/PR at Table III-4.

[116] CR at VII-32-37, PR at VII-20-22; Petitioner Prehearing Br. at 11; Hearing Tr. at 99 (Pauken), 110 (Sigler).

### D. Price Effects of Cumulated Subject Imports

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

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[117]

As discussed above, there is a moderate-to-high degree of substitutability among subject imports and the domestic like product.[118] Moreover, price, along with quality and availability of supply, are all important considerations in purchasing decisions.[119]

The Commission requested that domestic producers and importers of subject merchandise provide quarterly data for the total quantity and f.o.b. value of six ESBR products shipped to unrelated U.S. customers between January 2014 and March 2017.[120] Two U.S. producers and nine importers submitted usable pricing data on sales of the requested products, although not all firms reported pricing for all products for all quarters.[121]

There was widespread underselling of the domestic like product by subject imports whether measured in instances of underselling or in the quantities involved in the sales. Subject imports undersold the domestic like product in 150 of 218 quarterly price comparisons or in 68.8 percent of the quarterly price comparisons at underselling margins that ranged from 0.1 percent to 53.2 percent and oversold it in the remaining 68 comparisons at overselling margins that ranged from 0.7 percent to 138.1 percent.[122] The quarters in which subject imports undersold the domestic like product involved subject import sales of 285.7 million pounds, while the quarters in which subject imports oversold the domestic product involved subject import sales of 48.2 million pounds.[123] Thus, 85.6 percent of the quantity of subject imports covered by the Commission's pricing data was sold during quarters in which the

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[117] 19 U.S.C. § 1677(7)(C)(ii).

[118] CR at II-18, PR at II-11.

[119] CR at II-20, PR at II-11-12; CR/PR at Table II-7.

[120] The pricing products are: (1) IISRP 1502 grade of ESBR in all forms, sold under annual contracts; (2) IISRP 1502 grade of ESBR in all forms, sold as spot sales; (3) IISRP 1507 grade of ESBR in all forms; (4) IISRP 1500 grade of ESBR in all forms; (5) IISRP 1712 grade of ESBR in all forms; and (6) IISRP 1783 grade of ESBR in all forms. CR at V-5-6, PR at V-3-4.

[121] CR at V-6, PR at V-3. The pricing data accounted for approximately *** percent of the domestic industry's U.S. shipments of ESBR in 2016, 99.8 percent of U.S. shipments of subject imports from Brazil, 90.2 percent of U.S. shipments of subject imports from Korea, 60.1 percent of U.S. shipments of subject imports from Mexico, and 92.4 percent of U.S. shipments of subject imports from Poland. *See id.*

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

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

average price of these imports was less than that of the comparable domestic product. Given the prevalent underselling and the fact that price is an important consideration in purchasing decisions, we find underselling to be significant.[124]

Respondents contend that the pricing data for pricing product 1 are skewed in light of a swap agreement that existed between Goodyear and Arlanxeo for most of the period of investigation (except between April 2014 and February 2015).[125] They argue that because ESBR is transferred pursuant to the swap agreement between the two companies at an artificially determined price which is higher than the actual market price, the Commission should either remove the swap data entirely (*i.e.*, remove Goodyear's quantity and value data for volumes subject to the swap transactions) or replace sales quantities and values submitted by Goodyear with Arlanxeo USA's data.[126] They claim that using either of these options would reduce the extent of underselling.[127] We observe that Goodyear and Arlanxeo are unrelated parties that entered into a business agreement.[128] Although respondents claim that the *** upon which the swap sales price was based was generally higher than the market price, this does not alter the fact that the price of the swap sales was negotiated between two unrelated companies.[129] We consequently decline to revise the pricing data.[130] [131]

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[124] Eight of 20 purchasers responding to the Commission's questionnaire reported that prices for subject imports were lower than the domestic like product and four of these purchasers reported that price was a primary reason for the decision to purchase subject imports rather than the domestic like product. One purchaser reported that domestic producers had reduced their prices in order to compete with the prices of subject imports. CR at V-23-24, PR at V-7-8; CR/PR at Tables V-12-13.

[125] Respondents Posthearing Br. at Appendix A, pp.11-22. Respondents state that pursuant to the swap agreement, Goodyear provided domestically produced grade 1502 ESBR to Arlanxeo USA for sale to domestic customers and, in exchange, Arlanxeo Brasil provided an equivalent volume of ESBR produced in Brazil to Goodyear in Brazil. *See id.* at Appendix A, p.11.

[126] Respondents Prehearing Br. at 27; Hearing Tr. at 146 (Weigel); Respondents Posthearing Br. at Appendix A, pp.11-22.

[127] Respondents Posthearing Br. at Appendix A, pp.14.

[128] Hearing Tr. at 143 (Weigel).

[129] Respondents Posthearing Br. at Appendix A, p.11; Hearing Tr. at 144, 153 (Sigler).

[130] We note that even if we were to remove the swapped transactions from the data set, it would only reduce the instances of underselling by a relatively small number and significant underselling by subject imports would still predominate in the pricing data as a whole.

[131] Respondents also argue that due to ***'s failure to provide quarterly data, the quarterly pricing data for the domestic industry are not representative. Respondents Prehearing Br. at 28. Because the pricing coverage for the domestic industry encompassed a majority of the domestic industry's U.S. shipments, we find them to be representative. CR at V-6, PR at V-4. In any event, respondents do not argue that *** prices were so much lower than other domestic producers' prices that inclusion of its pricing data would have significantly affected the underselling calculations. Nor does the information available in the record support such an inference; in the preliminary determinations the Commission examined the quarterly pricing data, which included *** quarterly data, and found significant underselling based on the fact that subject imports undersold the domestic like product in 70 of 127 quarterly price comparisons. Preliminary Determinations, USITC Pub. 4636 at 28.

We have also examined price trends and find that cumulated subject imports depressed U.S. producers' prices to a significant degree. Our analysis of price depression focuses on movements in quarterly prices for the domestic like product and subject imports between January 2014 and December 2016.[132] The pricing data for the domestic like product show that prices declined by *** percent to *** percent from January 2014 to December 2016 for all six pricing products.[133] The reported weighted-average prices for the six pricing products imported from the subject countries also declined irregularly from January 2014 to December 2016.[134]

Although we recognize that other factors contributed to the downward trend in prices, these cannot explain the magnitude of the declines in prices of the domestic like product. Demand decreased by *** percent between 2014 and 2016.[135] We do not find that the sharp decline in prices for the domestic like product can be attributed to the much more modest decline in demand. We observe that despite declining demand, the volume of cumulated subject imports remained at significant levels.[136]

Additionally, raw material costs declined between 2014 and 2016.[137] In this period, unit raw material costs fell from $*** per 1,000 pounds in 2014 to $*** in 2015 and $*** in 2016, or by $***. Largely due to the decline in raw material costs, the industry's unit COGS fell from $*** per 1,000 pounds in 2014 to $*** in 2015 and $*** in 2016, or by $***. The average unit

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[132] CR/PR at Tables V-3-8 and Figures V-2-7. We acknowledge that prices for all six domestically produced pricing products rose sharply during the first quarter of 2017, the final quarter for which pricing data were submitted. CR/PR at Tables V-3-8. There were, however, anomalous conditions during this quarter, as it reflected a period when raw material costs spiked. CR/PR at V-1.

[133] CR/PR at Tables V-3-8 and Figures V-2-7. Quarterly weighted average prices of product 1 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-3. Quarterly weighted average prices of product 2 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-4. Quarterly weighted average prices of product 3 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-5. Quarterly weighted average prices of product 4 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-6. Quarterly weighted average prices of product 5 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-7. Quarterly weighted average prices of product 6 manufactured in the United States declined irregularly from $*** per pound in the first quarter of 2014 to $*** per pound in the fourth quarter of 2016, or by *** percent. CR/PR at Table V-8.

[134] CR/PR at Tables V-3-8 and Figures V-2-7.

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

[136] CR/PR at Table C-1. Cumulated subject imports were *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016. *See id.*

[137] Between January 2014 and December 2016, the cost of styrene declined *** percent and the cost of butadiene declined ***. CR at V-1, PR at V-1; CR/PR at V-1. The overall raw material cost of the domestic producers declined from $*** in 2014 to $*** in 2015, and increased to $*** in 2016. CR/PR at Table VI-1.

value of total domestic net sales, however, declined more sharply than unit raw material costs or unit COGS. It fell from $*** per 1,000 pounds in 2014 to $*** in 2015 and $*** in 2016, or by $***.[138] Moreover in this period, total COGS as a ratio to sales increased by *** percentage points, further demonstrating that prices were falling faster than costs.[139]

That raw materials cost declines cannot fully explain the magnitude in price declines for the domestic like product is corroborated by information in the record regarding petitioner's conversion fees.[140] As we discussed above, sales of ESBR for use in tires, which account for the majority of sales, are made through annual contracts that are negotiated in the fourth quarter for the upcoming year. These contracts contain pricing formulas that generally consist of two components: (1) the variable component that is primarily tied to published prices of styrene and butadiene and (2) the fixed component (also known as the "conversion fee" or "adder"), which covers producers' other material costs, fixed overhead costs, and a profit margin. Between 2014 and 2016 petitioner substantially reduced its fixed conversion fee in contracts with U.S. purchasers, which included ***, the leading purchasers of ESBR in the U.S. market.[141] We observe that conversion fees are not intended to reflect primary raw material cost changes, which are addressed in a separate component of the pricing formulas. Moreover, we do not find that the modest decrease in demand was sufficient to explain the sharp decline in the conversion fees.[142]

We find that the significant volume of low-priced cumulated subject imports put pressure on the domestic industry to reduce prices by lowering the fixed conversion fee in the contract pricing formulas. Petitioner provided evidence of purchasers using subject import prices to leverage down purchase prices, and respondents themselves stated that purchasers could manipulate suppliers to achieve their desired prices during the contract negotiation

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[138] CR/PR at Tables VI-1-2. Our variance analysis confirms that net sales unit values decreased more than costs and expenses from 2014-16. CR at VI-16, PR at VI-5; CR/PR at Tables VI-2 and VI-5.

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

[140] Petitioner provided data regarding its conversion fees in attachments 3 and 5 of its posthearing brief. Petitioner Posthearing Br. at Attachments 3 and 5. There is nothing in the record calling into question the reliability of these data.

[141] Petitioner Posthearing Br. at Attachments 3 and 5; CR at I-4, PR at I-3. In its contract with Bridgestone, petitioner reduced its conversion fee (on a dollars per pound basis) from *** in 2014 to *** in 2016 for grade 1502 ESBR, from *** in 2014 to *** in 2016 for grade 1500 ESBR, from *** in 2014 to *** in 2016 for grade 1712 ESBR, and from *** in 2014 to *** in 2016 for grade 1778 ESBR; in its contract with Cooper Tire, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1763 ESBR; in its contract with Michelin, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1502 ESBR and from *** in 2014 to *** in 2016 for grade 1732 ESBR; in its contract with Titan Tire, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1500 ESBR and from *** in 2014 to *** in 2016 for grade 1502 ESBR; in its contract with Toyo, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1502 ESBR; in its contract with Yokohama, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1502 ESBR and from *** in 2014 to *** in 2016 for grade 1789 ESBR; in its contract with Continental, it reduced its conversion fee from *** in 2014 to *** in 2016 for grade 1502 ESBR. *See id.* According to petitioner, the domestic industry suffered adverse effects in the conversion fee, the most critical portion of the price quotation. Hearing Tr. at 21-22 (Zeringue).

[142] *Compare* CR/PR at Table C-1.

process.[143] Petitioner's flash reports reflect that purchasers were informing petitioner that its prices were too low compared to subject supply, requesting them to meet subject import prices, or reporting on the beneficial prices they were receiving from subject imports. For example, ***. These communications reflect that these purchasers were using ESBR imports from subject sources to put pricing pressure on petitioner, which resulted in lower conversion fees.[144] They also reflect the price transparency in this market discussed below.

Respondents argue that the price declines were due to intra-industry competition between Lion Elastomers and East West.[145] In support, they cite to petitioner's conversion fees in contracts with ***, which did not purchase ***, and argue that they declined significantly. According to respondents, in these instances, the *** in the conversion fees cannot be attributed ***.[146]

Respondents' argument fails because of the price transparency in this market. Both petitioner and respondents provided evidence on this price transparency and given this transparency we would expect that purchasers would be, for the most part, aware of reductions in conversion fees for other purchasers. Respondents themselves assert that pricing of ESBR is "relatively transparent in the iterative contract process," with each purchaser "manipula{ting} the potential suppliers to achieve its desired price level."[147] Petitioner states that "{s}ophisticated purchasers of a commodity product will all know the lowest conversion fee they can demand based on input from all suppliers, whether they buy from them or not."[148] Mr. Zeringue, Lion Elastomers' CEO and president, testified that "{w}e have encountered this {pricing} pressure from all major buyers and there's no protected part of the market where we are immune from the customer pressure on the conversion price, even if we win this business repeatedly."[149]

We acknowledge the intra-industry competition in this market, and that it may have played a role in declining prices during the period of investigation. However, as petitioner states, "Lion and East West competed with each other and with subject imports (emphasis in original)."[150] Competition has existed between the Baton Rouge plant and Port Neches plant, for the past 70 years.[151] It is the presence of cumulated subject imports in this market that has changed this dynamic.[152]

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[143] Respondents Posthearing Br. at Appendix A, p. 26.

[144] Petitioner Posthearing Brief at Attachment 3; Hearing Tr. at 21-23 (Zeringue).

[145] Respondents Prehearing Br. at 28-30; Respondents Posthearing Br. at 8-10, Attachment 1.

[146] Respondents Final Comments at 3.

[147] Respondents Posthearing Br. at Appendix A, pp.23, 26.

[148] Petitioner Final Comments at 6.

[149] Hearing Tr. at 22 (Zeringue).

[150] Petitioner Final Comments at 5.

[151] Hearing Tr. at 48 (Zeringue).

[152] Hearing Tr. at 23 (Zeringue) ("In response to our efforts to prevent further cuts, one of the large customers in the most recent round of contract negotiations also told us that they really didn't care if the U.S. producers went out of business since they had enough foreign producers available who would meet the price demand. This is a major difference between the conditions existing now versus 20 years ago.")

Respondents also discount the pricing data, arguing that it is impossible to get a "true picture of what was occurring with ESBR prices" during the period of investigation because petitioner's contract pricing formulas are complex and multifaceted with the variable component containing *** and the fixed component ***.[153] As discussed above, however, respondents themselves assert that pricing of ESBR is relatively transparent and that purchasers can exert pressure on their suppliers to lower prices.[154] Purchasers of ESBR are therefore able to negotiate the lowest conversion fee they can demand based on input from all suppliers.[155] Consequently, and contrary to respondents' contention, the pricing data reflect the outcome of a transparent contract negotiation process between market participants.

Based on the record, we find that there was significant underselling of the domestic like product by cumulated subject imports. We also find that cumulated subject imports depressed prices for the domestic like product to a significant degree.

### E. Impact of Cumulated Subject Imports[156]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[157] These factors include output, sales, inventories, capacity

[153] Respondents Final Comments at 4-5.

[154] Respondents Posthearing Br. at Appendix A, pp. 23, 26.

[155] During the hearing, a representative for Cooper Tire testified that the company undertakes a thorough analysis of the global ESBR supply and demand, regional monomer supply, and pricing forecasts and manipulates the fixed cost component to get an apples-to-apples comparison among suppliers. She further testified that annual contract negotiations is an iterative process with multiple rounds of negotiations with eight to ten potential suppliers during which the company will provide feedback to the suppliers regarding their offers. Hearing Tr. at 95-96, 140 (Pauken).

[156] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination of sales at less value, Commerce found a dumping margin of 19.61 percent for subject imports from Brazil, margins between 9.66 percent and 44.3 percent for subject imports from Korea, a margin of 19.52 percent for subject imports from Mexico, and a margin of 25.43 percent for subject imports from Poland. *Emulsion Styrene-Butadiene Rubber from Brazil*, 82 Fed. Reg. at 33048; *Emulsion Styrene-Butadiene Rubber from Korea*, 82 Fed. Reg. at 33046; *Emulsion Styrene-Butadiene Rubber from Mexico*, 82 Fed. Reg. at 33063; and *Emulsion Styrene-Butadiene Rubber from Poland* , 82 Fed. Reg. at 33062. We take into account in our analysis the fact that Commerce has made final findings that all subject producers in Brazil, Korea, Mexico, and Poland are selling subject imports in the United States at less than fair value. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant underselling and price depression of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

[157] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also (Continued...)

utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[158]

We find that cumulated subject imports from Brazil, Korea, Mexico, and Poland had a significant impact on the domestic industry. The domestic industry's performance was poor throughout the period of investigation, with most indicators suffering declines from 2014 to 2016, notwithstanding an increase in market share.[159] Its production[160] and capacity utilization[161] declined from 2014 to 2016, notwithstanding an increase in capacity.[162] U.S. shipments declined from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016.[163] The domestic industry's end-of-period inventories declined from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016.[164]

The domestic industry's number of production related workers[165] and hours worked[166] fluctuated from year to year but decreased overall from 2014 to 2016. Hourly wages increased

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(…Continued)
may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[158] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[159] The domestic industry's share of the market increased from *** percent in 2014 to *** percent in 2015 and *** percent in 2016, and was lower in interim 2017 at *** percent than in interim 2016 at *** percent. CR/PR at Table IV-8.

[160] CR/PR at Table III-4. Production declined from *** pounds in 2014 to *** pounds in 2015, before increasing to *** pounds in 2016, and was lower in interim 2017 at *** pounds than in interim 2016 at ***. *See id.*

[161] CR/PR at Table III-4. The domestic industry's capacity utilization declined from *** percent in 2014 to *** percent in 2015, before increasing to *** percent in 2016, and was lower in interim 2017 at *** percent than in interim 2016 at *** percent. *See id.*

[162] The domestic industry's production capacity increased from *** pounds in 2014 to *** pounds in 2015 and 2016. CR/PR at Table III-4. Capacity was *** pounds during both interim periods. *See id*.

[163] CR/PR at Table III-6. The domestic industry's U.S. shipments were lower in interim 2017 at *** pounds than in interim 2016 at *** pounds. *See id.*

Respondents argue that the domestic industry's increasing export shipments at decreasing unit values were a factor in the domestic industry's declining performance. Respondents Prehearing Br. at 35, 38. The domestic industry ***. CR/PR at Tables C-1-2.

[164] CR/PR at Table III-8. The domestic industry's end-of-period inventories were lower in interim 2017 at *** pounds than in interim 2016 at *** pounds. *See id.*

[165] The number of production related workers increased from *** workers in 2014 to *** workers in 2015, before decreasing to *** workers in 2016, and was lower in interim 2017 at *** worker than in interim 2016 at *** workers. CR/PR at Table III-10.

from 2014 to 2016.[167] The industry's productivity fluctuated and decreased overall from 2014 to 2016.[168]

The domestic industry's sales revenues, operating income, operating margins, gross profit, and net income all declined from 2014 to 2016, and measures of profitability were at poor levels in interim 2017. Net sales revenues declined from $*** in 2014 to $*** in 2015 and $*** in 2016.[169] The domestic industry's COGS as a ratio to net sales initially decreased from *** percent in 2014 to *** percent in 2015, before increasing to *** percent in 2016.[170] Reflecting this, the domestic industry's gross profit decreased from $*** in 2014 to $*** in 2015 and *** in 2016.[171] The industry incurred operating *** throughout the period of investigation. Operating income initially improved from *** in 2014 to *** in 2015, before declining to *** in 2016.[172] The industry's ratio of operating income to net sales also initially improved from *** percent in 2014 to *** percent in 2015, before declining to *** percent in 2016.[173] Net income declined from *** in 2014 to *** in 2014 and *** in 2016.[174] The domestic industry's capital expenditures increased from 2014 to 2016, while its research and development expenditures decreased.[175]

As discussed above, we have found that the volume of cumulated subject imports was significant during the period of investigation. Additionally, this significant volume of cumulated subject imports significantly undersold the domestic like product and depressed U.S. prices to a significant degree. Due to the availability of low-priced subject imports, the domestic industry

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(…Continued)

[166] Total hours worked increased from *** hours in 2014 to *** hours in 2015, before decreasing to *** hours in 2016, and was lower in interim 2017 at *** hours than in interim 2016 at *** hours. CR/PR at Table III-10.

[167] Hourly wages increased from $*** in 2014 to $*** in 2015 and $*** in 2016, and were higher in interim 2017 at $*** than in interim 2016 at $***. CR/PR at Table III-10.

[168] Productivity (pounds per hour) decreased from *** pounds in 2014 to *** pounds, before increasing to *** pounds in 2016, and was higher in interim 2017 at *** pounds than in interim 2016 at *** pounds. CR/PR at Table III-10.

[169] CR/PR at VI-1. Net sales revenue was higher in interim 2017 at $*** than in interim 2016 at $***. *See id.*

[170] CR/PR at Table VI-1. The domestic industry's COGS as a ratio to net sales was lower in interim 2017 at *** percent than in interim 2016 at *** percent. *See id.*

[171] CR/PR at Table VI-1. The domestic industry's gross profit was *** in interim 2016 and $*** in interim 2017. *See id.*

[172] CR/PR at Table VI-1. The domestic industry operating income was *** in interim 2016 and *** in interim 2017. *See id.*

[173] CR/PR at Table VI-1. The domestic industry's operating income ratio was *** percent in interim 2016 and *** percent in interim 2017. *See id.*

[174] CR/PR at Table VI-1. The domestic industry's net income was *** in interim 2016 and *** in interim 2017. *See id.*

[175] The domestic industry's capital expenditures increased from $*** in 2014 and 2015 to $*** in 2016, and were higher in interim 2017 at $*** than in interim 2016 at $***. CR/PR at Table VI-6. Its research and development expenses declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and were higher in interim 2017 at $*** than in interim 2016 at $***. *See id.*

was forced to reduce prices, which in turn, caused the domestic industry's revenues to be lower than they would have been otherwise. Indeed, the domestic industry's sales revenues and profitability all declined from 2014 to 2016.

We have considered respondents' argument that the domestic industry's poor performance was not caused by subject imports, but rather was the result of intra-industry competition between East West and Lion Elastomers and the companies' changes in operations (shutdowns, start-ups, and changes in ownership), which caused U.S. purchasers to question the reliability and availability of domestic supply.[176] We acknowledge that intra-industry competition existed during the period of investigation, but we find that such competition does not explain the significant volume of cumulated subject imports, the significant underselling of the domestic like product by cumulated subject imports, and the significant price depression caused by the cumulated subject imports during this time period.[177] Furthermore, respondents' claims of intra-industry competition between Lion Elastomers and East West do not account for the increased subject import competition reported by Goodyear in the U.S. market.[178]

Moreover, we find that notwithstanding the closure of the Baton Rouge plant and the changes in ownership at the Baton Rouge and the Port Neches plants, most responding purchasers reported that the domestic like product was comparable to subject imports from Brazil, Korea, Mexico, and Poland in availability and reliability of supply.[179]

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[176] Respondents Posthearing Br. at 1-2.

[177] We give little credence to the affidavit of *** submitted by respondents. Respondents Posthearing Br. at Ex. 1. We observe that that the statements contained in *** affidavit *** are contradicted by *** and East West's statement during its bankruptcy proceedings that the precipitous price declines for ESBR were caused by below-cost dumping of ESBR by foreign producers in the U.S. market. Conf. Tr. at ***; CR at VI-2 n.4, PR at VI-1 n.4.

[178] *** U.S. Producer Questionnaire Response at III-18(a) (May 2017). Goodyear states that global oversupply of ESBR has led to increased subject and nonsubject import competition in the U.S. market. *Id*.

[179] CR/PR at Table II-10. Respondents argue that there is no causal nexus between subject imports and the condition of the domestic industry given that the domestic industry's *** financial performance occurred in 2016 when subject import volume declined and underselling was less prevalent. Further, respondents note the importance of non-price factors in purchasing decisions in this market. Respondents Posthearing Br. at 2-5, 13. Underselling of the domestic like product by subject imports whether measured in instances of underselling or in the quantities involved in those sales, however, continued to be widespread in 2016. Subject imports undersold the domestic like product in 58.5 percent of the price comparisons; the quarters in which subject imports undersold the domestic like product involved subject import sales of 77.9 million pounds while the quarters in which subject imports oversold the domestic like product involved subject import sales of 10.5 million pounds. CR/PR at Tables V-3-8. As discussed above, we find that notwithstanding their decline in volume from 2014 to 2016, cumulated subject imports remained at significant levels in the U.S. market throughout the period of investigation. Subject imports significantly undersold the domestic like product and depressed U.S. prices to a significant degree by putting pressure on the domestic industry to reduce prices by lowering the fixed conversion fee in the contract pricing formulas, which in turn, adversely impacted the domestic industry's performance. Although non-price factors are important in this market, so is price, and as (Continued...)

We have also considered the role of declining demand throughout the period of investigation. As explained above, the decline in demand cannot account for the price depression and consequent declines in industry revenues attributable to subject imports.

Finally, we have considered the role of nonsubject imports so as not to attribute injury from them to subject imports. Nonsubject imports as a share of apparent U.S. consumption increased during the period of investigation, but had a small presence in the U.S. ESBR market, accounting for between *** percent and *** percent of apparent U.S. consumption during this period.[180] The record contains pricing data from Germany, the largest supplier of nonsubject imports, which account for 93.3 percent of U.S. commercial shipments of ESBR from Germany in 2016. These indicate that nonsubject imports from Germany oversold the domestic like product and subject imports in a majority of quarterly comparisons.[181] Accordingly, we find that nonsubject imports do not explain the domestic industry's price declines and consequent loss of revenues during the period of investigation.

We consequently find that cumulated subject imports had a significant impact on the domestic industry during the period of investigation. Accordingly, we determine that the domestic ESBR industry is materially injured by reason of cumulated subject imports.

## VI. Critical Circumstances

### A. Legal Standards and Party Arguments

In its final antidumping duty determination concerning ESBR imports from Korea, Commerce found that critical circumstances exist with respect to Daewoo International Corporation ("Daewoo") and Kumho.[182] Because we have determined that the domestic industry is materially injured by reason of subject imports from Korea, we must further determine "whether the imports subject to the affirmative {Commerce critical circumstances} determination ... are likely to undermine seriously the remedial effect of the antidumping {and/or countervailing duty} order{s} to be issued."[183] The SAA indicates that the Commission is to determine "whether, by massively increasing imports prior to the effective date of relief, the importers have seriously undermined the remedial effect of the order" and specifically "whether the surge in imports prior to the suspension of liquidation, rather than the failure to provide retroactive relief, is likely to seriously undermine the remedial effect of the order."[184]

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(…Continued)
stated in the text, most responding purchasers reported that the domestic like product was comparable to ESBR imports from the subject countries in availability and reliability of supply.

[180] CR/PR at Table IV-8.

[181] CR/PR at Table D-4; CR at D-3, PR at D-3.

[182] *Emulsion Styrene-Butadiene Rubber from Korea*, 82 Fed. Reg. at 33046. Commerce found that critical circumstances do not exist with respect to LG Chem and all other producers and exporters in Korea. *See id.* Commerce also found that critical circumstances do not exist with respect to any producer or exporter in Brazil. *Emulsion Styrene-Butadiene Rubber from Brazil*, 82 Fed. Reg. at 33049.

[183] 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii).

[184] SAA at 877.

The legislative history for the critical circumstances provision indicates that the provision was designed "to deter exporters whose merchandise is subject to an investigation from circumventing the intent of the law by increasing their exports to the United States during the period between initiation of an investigation and a preliminary determination by {Commerce}."[185] An affirmative critical circumstances determination by the Commission, in conjunction with an affirmative determination of material injury by reason of subject imports, would normally result in the retroactive imposition of duties for those imports subject to the affirmative Commerce critical circumstances determination for a period 90 days prior to the suspension of liquidation.

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

> (I) the timing and the volume of the imports,
>
> (II) a rapid increase in inventories of the imports, and
>
> (III) any other circumstances indicating that the remedial effect of the {order} will be seriously undermined.[186]

In considering the timing and volume of subject imports, the Commission's practice is to consider import quantities prior to the filing of the petition with those subsequent to the filing of the petition using monthly statistics on the record regarding those firms for which Commerce has made an affirmative critical circumstances determination.[187]

The Korean respondent argues that the Commission should make a negative critical circumstances finding with respect to imports of ESBR from Daewoo and Kumho. It states that subject imports from these companies were *** in the six months after the filing of the petitions than in the six months before that, and that inventories of ESBR from Korea were *** percent lower in 2016 than in 2014. The Korean respondent asserts that because nothing in the record demonstrates that post-petition levels of subject imports from Daewoo and Kumho would significantly postpone, materially impair, or undermine seriously the remedial effect of any potential antidumping duty order, the Commission should make a negative critical circumstances finding.[188]

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[185] *ICC Industries, Inc. v United States,* 812 F.2d 694, 700 (Fed. Cir. 1987), *quoting* H.R. Rep. No. 96-317 at 63 (1979), *aff'g* 632 F. Supp. 36 (Ct. Int'l Trade 1986). *See* 19 U.S.C. §§ 1671b(e)(2), 1673b(e)(2).

[186] 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii).

[187] *See Lined Paper School Supplies from China, India, and Indonesia,* Inv. Nos. 701-TA-442-43, 731-TA-1095-97, USITC Pub. 3884 at 46-48 (Sept. 2006); *Carbazole Violet Pigment from China and India,* Inv. Nos. 701-TA-437 and 731-TA-1060-61 (Final), USITC Pub. 3744 at 26 (Dec. 2004); *Certain Frozen Fish Fillets from Vietnam,* Inv. No. 731-TA-1012 (Final), USITC Pub. 3617 at 20-22 (Aug. 2003).

[188] Korean Respondent Prehearing Brief at 14-16. Petitioner does not make any arguments regarding whether imports of ESBR from Daewoo and Kumho are likely to undermine seriously the remedial effect of the antidumping order to be issued on subject imports from Korea.

### B. Analysis

The Commission is not required to analyze the same period that Commerce examined in its critical circumstances analysis.[189] Unless the industry under investigation involves seasonality or the Commission decides that circumstances warrant otherwise,[190] the Commission generally compares six months of data gathered from the periods immediately preceding and following the petitions' filing, with the earlier period including the month in which the petitions were filed.[191]

In its final antidumping duty critical circumstances determination for ESBR from Korea, Commerce determined that critical circumstances exist with regard to imports from Daewoo and Kumho.[192] The monthly data for subject import volume from Daewoo and Kumho for the six-month periods before and after the filing of the petition show a decline, from *** pounds in February-July 2016 to *** pounds in August 2016-January 2017.[193] The available information on inventories, which concerns all subject imports from Korea, indicates that inventories declined from *** pounds in 2015 to *** pounds in 2016.[194] In light of these declines in

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[189] *Certain Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007); *Steel Concrete Reinforcing Bars from Turkey*, Inv. No. 731-TA-745 (Final), USITC Pub. 3034 at 34 (Apr. 1997).

[190] The Commission has relied on a shorter comparison period when Commerce's preliminary determination applicable to the country at issue fell within the six-month post-petition period the Commission typically considers. *Certain Hot-Rolled Steel Flat Products from Australia, Brazil, Japan, Korea, the Netherlands, Turkey, and the United Kingdom*, Inv. Nos. 701-TA-545-547, 731-TA-1291-1297 (Final), USITC Pub. 4638 at 49-50 (Sept. 2016); *Certain Corrosion-Resistance Steel Products from China, India, Italy, Korea, and Taiwan,* Inv. No. 701-TA-534-537 and 731-TA-1274-1278 (Final), USITC Pub. 4630 at 35-40 (July 2016); *Carbon and Certain Steel Wire Rod from China*, Inv. Nos. 701-TA-512, 731-TA-1248 (Final), USITC Pub. 4509 at 25-26 (Jan. 2015) (using five-month periods because preliminary Commerce countervailing duty determination was during the sixth month after the petition). The Commission may also use different periods when the product is seasonal. *See 1,1,1,2--Tetrafluoroethane (R-134a) from China*, Inv. No. 731-TA-1313 (Final), USITC Pub. 4679 at 25 (April 2017) (seasonal product); *Certain Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007) (declining to analyze different periods absent seasonality).

[191] *Laminated Woven Sacks from China*, Inv. Nos. 701-TA-450 and 731-TA-1122 (Final), USITC Pub. 4025 at 48-50 (July 2008); *Light-Walled Rectangular Pipe from China et al.,* Inv. Nos. 701-TA-459 and 731-TA-1118-20 (Final), USITC Pub. 4024 at 18-19 (July 2008); *Certain Steel Nails from China*, Inv. No. 731-TA-1114 (Final), USITC Pub. 4022 at 28-29 (July 2008); *Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 at 35 (June 2007); *Chlorinated Isocyanurates from China and Spain,* Inv. Nos. 731-TA-1082-83 (Final), USITC Pub. 3782 at 35-37 (June 2005); *Alloy Magnesium from China*, Inv. No. 731-TA-1071 (Final), USITC Pub. 4182 at 24 (Sept . 2010); *Stainless Steel Butt-Weld Pipe Fittings from Italy, Malaysia, and the Philippines*, Inv. Nos. 731-TA-865-67 (Final), USITC Pub. 3387 at 13-16 (Jan. 2001); *Certain Warmwater Shrimp and Prawns,* Inv. Nos. 731-TA-1063-68 (Final), USITC Pub. 3748 at 36-37 (Jan. 2005).

[192] *Emulsion Styrene-Butadiene Rubber from Korea*, 82 Fed. Reg. at 33046.

[193] CR/PR at Table IV-3.

[194] CR/PR at Table VII-20.

imports and inventories, and in the absence of any other circumstances indicating that the remedial effect of the antidumping duty order will be seriously undermined, we make a negative critical circumstances determination with regard to subject imports from Daewoo and Kumho in the antidumping duty investigation of ESBR imports from Korea.

## VII. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of ESBR from Brazil, Korea, Mexico, and Poland that are sold in the United States at less than fair value.

## Dissenting Views of Vice Chairman David S. Johanson and Commissioner Meredith M. Broadbent

Based on the record in the final phase of these investigations, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of emulsion styrene-butadiene rubber ("ESBR") from Brazil, Korea, Mexico, and Poland found by the U.S. Department of Commerce ("Commerce") to be sold at less-than-fair value. We join Sections I-V.B.5 of the Views of the Commission, except as otherwise indicated.

Our negative determinations are based on findings that: (1) subject imports decreased in absolute terms and relative to consumption and the domestic industry gained market share; (2) there was a lack of adverse price effects caused by subject imports in light of a number of other factors driving changes in domestic prices; (3) subject imports did not cause the domestic industry's operating and financial condition to be worse than it would have been otherwise; and (4) the domestic industry is not threatened with material injury in the imminent future.

### I. No Material Injury By Reason of Cumulated Subject Imports

As discussed in Section IV of the Views of the Commission, we join our colleagues in finding that there is a reasonable overlap of competition between subject imports from Brazil, Korea, Mexico, and Poland and between imports from each subject country and the domestic like product. Thus, for purposes of our material injury analysis, we consider subject imports on a cumulated basis.

We also join our colleagues in the discussion of pertinent conditions of competition, beginning at Section V.B. of the Views of the Commission. As mentioned in the supply section, Section V.B.3 of the Views of the Commission, an important condition of competition during this period of investigation ("POI") was the changes in the domestic industry composition that occurred, beginning in 2013. When Lion Elastomers ("Lion") closed its production plant in Baton Rouge, Louisiana, and left the ESBR market in December 2013, it gave no indication to U.S. purchasers that it planned to return as a U.S. supplier in the future.[1] Moreover, as discussed in Section V.B.5 of the Views of the Commission, annual contracts are negotiated and signed at the end of the year for the following year, which made Lion's departure from the U.S. market during a critical period of annual contract negotiations in December 2013 especially disruptive to the U.S. market going into 2014, the first year of the POI.[2] Consequently, we find that Lion's departure in December 2013, East West's entrance into the ESBR market in April 2014, and Lion's subsequent re-entrance into the ESBR market in December 2014 all had destabilizing effects on domestic industry supply, the consequences of which are germane to our volume, price, and impact analysis.

[1] Hearing Tr. at 50 (Zeringue).

[2] Hearing Tr. at 50-51 (Zeringue). In recognition of its supply disrupting effect, Lion made "inventory available to customers for a period of time to help them bridge between that ending contract period and the time that they could find alternative supply." *Id.* at 51 (Zeringue).

### a. 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."

During the POI, cumulated subject imports accounted for a steadily declining share of the U.S. market. The volume of subject imports, in absolute terms, declined by *** percent between 2014 and 2016, falling from *** pounds in 2014 to *** pounds in 2016.[3] Subject import declines outpaced the decrease in apparent U.S. consumption of *** percent between 2014 and 2016.[4] As a result, U.S. shipments of cumulated subject imports as a share of apparent U.S. consumption declined by *** percentage points between 2014 and 2016, falling from *** percent in 2014 to *** percent in 2016.[5] U.S. producers' market share increased from *** percent in 2014 to *** percent in 2016,[6] while nonsubject imports' market share increased from *** percent in 2014 to *** percent in 2016.[7] Thus, the total volume of cumulated subject imports during the full-year POI accounted for a substantial share of the U.S. market, but subject imports decreased absolutely and lost market share to both U.S. producers and nonsubject imports over that period.[8]

Petitioner asks the Commission to take into account the volume of subject imports prior to 2014 in order to assess the significance of subject import volumes in the current POI. Although they do not request an extension of the Commission's POI to include 2013, Petitioner notes that the Commission found that there was a significant increase in the volume of subject

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[3] CR/PR at Table IV-2. The quantity of subject imports in January to March ("interim") 2016 was *** pounds, and declined to *** pounds in interim 2017. *Id*.

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

[5] CR/PR at Table C-1. Cumulated subject imports' market share increased by *** percentage points between interim 2016 and 2017, from *** percent to *** percent. *Id.*

[6] CR/PR at Table C-1. U.S. producers' market share was *** percent lower in interim 2017 than in interim 2016 (*** percent in interim 2016 and *** percent in interim 2017). *Id.*

[7] CR/PR at Table C-1. Nonsubject imports' market share was *** percent higher in interim 2017 than in interim 2016 (*** percent in interim 2016 and *** percent in interim 2017). *Id.*

[8] Subject imports also declined relative to U.S. production, falling from *** percent in 2014 to *** percent in 2016, and falling from *** percent in interim 2016 to *** percent in interim 2017. CR/PR at Table IV-2.

Petitioner argues that the Commission must consider the impact of the filing of the petition in July 2016 and the imposition of preliminary antidumping duties in February 2017, which it states would have impacted the volume and price trends starting in the second half of 2016. Petitioner Prehearing Br. at 13. In these investigations, we do not place less weight on either volume or pricing data during the latter portion of the POI as a result of the petition filing or the imposition of preliminary duties. Subject imports volumes were only *** percent lower in the second half of 2016 than they were in the first half of 2016, and increased in March 2017 over February 2017 levels despite the provisional duties. CR/PR at Table IV-5. Moreover, U.S. shipments of subject imports increased in the interim period, which is inconsistent with a post-petition effect and appears attributable to the domestic supply disruption in interim 2017 caused by the ***. *See* CR at III-3, PR at III-2; CR/PR at Tables III-4 & IV-7.

imports during the preliminary phase, which included 2013 as a base year.[9] Respondents argue against expanding the Commission's volume analysis to include 2013 data.[10] We consider the data gathered for the January 2014 to March 2017 period to provide a sufficient basis for assessing the significance of subject import volume, but we note that Lion's exit from the U.S. market in 2013 resulted in U.S. purchasers seeking alternative sources of supply during a critical contract period, which led to an increase in volume of subject imports. We also note that as East West entered the market in April 2014, and Lion subsequently re-entered the market in December 2014, subject imports declined in absolute terms and relative to consumption.[11] [12]

While we observe that the volume of subject imports decreased absolutely and relative to consumption, we nevertheless find the volume of subject imports to be significant in absolute terms and relative to consumption in the United States during the POI.

**b. Price Effects of Subject Imports**

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

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

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

As discussed in the Views of the Commission, the record indicates that there is a moderate-to-high degree of substitutability between U.S.-produced ESBR and subject imports. In addition, while price is an important factor in purchasing decisions, factors such as availability, product consistency, reliability of supply, and quality were more frequently listed as "very important" by responding purchasers.[13]

[9] Petitioner Posthearing Br. at 5-7.

[10] Joint Respondents Posthearing Br., Answers to Commissioner Questions at 3-6.

[11] CR/PR at Table C-1. The domestic industry's market share was *** percentage points higher in 2015 than in 2014, whereas subject imports' market share was *** percentage points lower in 2015 than in 2014. *Id.* Moreover, the domestic industry's market share was *** percentage points higher in 2016 than in 2015, whereas subject imports' market share was *** percentage points lower in 2016 than in 2015. *Id.*

[12] The market share of subject imports was *** percentage points higher in interim 2017 than in interim 2016, while the domestic industry's market share was *** percentage points lower in interim 2017 than in interim 2016. CR/PR at Table C-1. However, we observe that East West substantially reduced production in interim 2017 and shut down the Baton Rouge plant in March 2017, the effect of which reduced the number of domestic producers in the U.S. market and again resulted in U.S. purchasers having to seek alternative sources of supply. CR at II-22, PR at II-13; CR at III-3, PR at III-2; CR/PR at Table III-4.

[13] CR/PR at Table II-8.

In the final phase of these investigations, two domestic producers and nine importers of subject merchandise provided usable pricing data for six products,[14] although not all firms reported pricing data for all products for all quarters.[15] The data show that there were more instances of underselling by subject imports than instances of overselling. During this period, subject imports undersold U.S.-produced ESBR in 150 of 218 quarterly comparisons, with an average underselling margin of 10.6 percent.[16] Subject imports oversold U.S.-produced ESBR in the remaining 68 quarterly comparisons, with an average overselling margin of 30.1 percent.[17] There were 285.7 million pounds of subject imports involved in underselling observations, and 48.2 million pounds of subject imports involved in overselling observations.[18]

The record therefore indicates that subject imports were priced lower than U.S.-produced ESBR relatively consistently throughout the POI. Nonetheless, the record reveals no significant effects as a result of this underselling, and therefore we do not find underselling to be significant.[19] As discussed above, subject imports decreased both absolutely and relative to apparent U.S. consumption from 2014 to 2016 despite being available at lower prices, while the U.S. industry's market share was stable and slightly increasing. Similarly, purchasers indicated that the share of their total purchases that were supplied by U.S. producers increased by 1.5 percentage points, whereas the share of their total purchases that were supplied by subject imports decreased by 1.5 percentage points.[20] Thus, the evidence on the record does not

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[14] CR at V-6-7, PR at V-4. The six pricing products are:

*Product 1*.—IISRP 1502 grade of ESBR in all forms, sold under annual contracts.

*Product 2*.—IISRP 1502 grade of ESBR in all forms, sold as spot sales.

*Product 3*.—IISRP 1507 grade of ESBR in all forms.

*Product 4*.—IISRP 1507 grade of ESBR in all forms.

*Product 5*.—IISRP 1500 grade of ESBR in all forms.

*Product 6*.—IISRP 1712 grade of ESBR in all forms.

[15] CR at V-7, PR at V-4. Reported pricing data accounted for approximately *** percent of U.S. producers' shipments, 99.8 percent of U.S. shipments of subject imports from Brazil, 90.2 percent of U.S. shipments of subject imports from Korea, 60.1 percent of U.S. shipments of subject imports from Mexico, and 92.4 percent of U.S. shipments of subject imports from Poland in 2016. *Id*.

The collected data may overstate domestic prices. For example, *** did not provide quarterly pricing data. *See* CR at I-5 n.9, PR at I-4 n.9. Alternatively, Respondents argue that a swap agreement between Goodyear and Arlanxeo resulted in domestic prices being skewed. Respondent's Posthearing Br. at App. A, p.11-22. However, we find no sound basis for adjusting the pricing data and rely upon such data for our analysis. *Cf*. CR/PR at Table II-10 (most responding purchasers reported that domestic product and subject imports were comparable in terms of price).

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

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

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

[19] *Compare*, *e.g.*, *Altx, Inc. v. United States*, 26 CIT 1425, 1436-37 (2002) (upholding finding that underselling was not significant in the absence of adverse effects caused by the underselling), *aff'd*, 370 F.3d 1108 (Fed. Cir. 2004).

[20] CR/PR at Table V-11. Twelve purchasers reported purchasing subject imports instead of U.S.-produced ESBR at some point over the POI, and eight of those purchasers indicated that import prices were lower. However, only four of these purchasers indicated that they purchased subject imports due (Continued...)

indicate that underselling by subject imports resulted in a market share shift at the domestic industry's expense.

We do not find that subject imports depressed U.S. producers' prices to a significant degree. Although Petitioner asks that we focus our pricing analysis on the 2014 to 2016 period,[21] we note that price increases in the first quarter of 2017 occurred despite continued subject import underselling and an increase in U.S. shipments of subject imports.[22] As a result of this final increase, U.S. prices were higher for all pricing products at the end of the period than they were at the beginning of the period, with prices increasing over the full period by between *** percent and *** percent.[23]

Nonetheless, we also examine factors contributing to price trends over the course of the POI, which fluctuated substantially despite ending the period at a higher level than at the beginning of the period. Over this period, subject import price trends consistently tracked those for U.S.-produced ESBR, and although the subject imports were more frequently lower-priced, there is no indication that U.S. prices fell to meet subject import prices.[24] Out of 20 responding purchasers, only one, the sales arm of producer ***, reported that U.S. producers had to reduce prices to compete with subject imports, and six reported affirmatively that U.S. producers did not have to reduce prices to compete with subject imports.[25]

The record indicates that prices for ESBR tracked changes in raw material prices. As discussed in Section V.B.5 of the Views of the Commission, most U.S.-produced and imported ESBR are sold through contracts, generally negotiated annually. Both U.S. producers and the three U.S. importers accounting for the vast majority of subject imports reported using pricing formulas in these contracts that include a variable component tied to publicly available published prices of styrene and butadiene, the key raw materials used to produce ESBR.[26] Between the first quarter of 2014 and the first quarter of 2016, the prices of butadiene and

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(…Continued)
to their lower price, and three of the four also cited non-price reasons involving availability, quality, and global supply arrangements as factors driving their decisions to purchase the subject imports instead of the U.S.-produced ESBR. CR/PR at Table V-12.

[21] Petitioner Prehearing Br. at 21.

[22] In the first quarter of 2017, there were 10 instances of underselling and 4 instances of overselling. CR/PR at Tables V-3-8. U.S. shipments of subject imports were *** percent higher in interim 2017 than in interim 2016. CR/PR at Table C-1. As discussed above, we do not place less weight on interim 2017 data.

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

[24] CR/PR at Tables V-3-8, Figures V-2-7.

[25] CR/PR at Table V-13; CR at V-25, PR at V-8.

[26] CR at V-5, PR at V-3; U.S. importer questionnaire responses of ***. Although the variable component differs among contracts based upon the published benchmark prices used (that may be based on different world regions such as Asia, Europe, or North America), the lag periods used, and the percentage factors assigned to each raw material, all producers and importers that reported these formulas reported tying their contract prices to at least these two raw materials.

styrene decreased sharply, falling by *** percent and *** percent, respectively.[27] From these low levels, butadiene and styrene prices increased between the first quarter of 2016 and the first quarter of 2017 by *** percent and *** percent, respectively.[28] Raw material price trends were consistent with concurrent trends in U.S. prices for ESBR, which fell by between *** percent and *** percent until the first quarter of 2016 before increasing by between *** percent and *** percent over the remainder of the period.[29]

U.S. prices also were affected by decreasing demand and increasing domestic competition over the POI. As discussed in Section V.B.2 of the Views of the Commission, both Petitioner and Respondents state that demand for ESBR declined over the POI due to reduced demand for end-use products and also due to increased use of SSBR as a favored substitute for ESBR for production of certain types of new tires. Apparent U.S. consumption declined by *** percent between 2014 and 2016 as a result of these trends.[30] In the face of this declining demand, there was an increase in available domestic supply between 2014 and 2015 as East West restarted an inactive facility in Baton Rouge, Louisiana, and began competing in late 2014 for contracts covering purchasers' 2015 requirements.[31] Subject imports, which consistently declined over the POI, did not contribute to the increase in available supply that occurred, much less to price competition ***.[32]

Petitioner claims that U.S. producers' "conversion fees," or the non-variable fixed components of contract prices, decreased over the POI by between *** percent.[33] We note that Petitioner did not request the collection of data on conversion fees in their response to the draft questionnaire, and the Commission did not receive these data until they were provided in Petitioner's posthearing brief. Moreover, substantial parts of the offered data fall outside of the POI, cover products not within the scope of investigation, and are not Lion's conversion fees, which apply only to the latter part of the POI.[34]

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[27] Quarterly raw material prices are derived from monthly data, calculated using simple averages based on figures in the Rubber Statistical Bulletin. *See* International Rubber Study Group, 71 Rubber Statistical Bulletin 10-12 (April-June 2017); 71 Rubber Statistical Bulletin 7-9 (Jan-March 2017); and 69 Rubber Statistical Bulletin 4-6 (Oct-Dec 2014).

[28] Quarterly raw material prices are derived from monthly data, calculated using simple averages based on figures in the Rubber Statistical Bulletin. *See* International Rubber Study Group, 71 Rubber Statistical Bulletin 10-12 (April-June 2017) and 71 Rubber Statistical Bulletin 7-9 (Jan-March 2017).

[29] CR/PR at Tables V-3-8. U.S. prices for three of the six pricing products continued to decline slightly, by between *** and *** percent, in the second quarter of 2016, before increasing through the rest of the POI. *Id.* Although raw material prices had begun to increase in the second quarter of 2016, this one-quarter lag is likely the result of formulas that tie delivered prices for ESBR to the prices of butadiene and styrene from prior months. CR at V-5, PR at V-3. We note further that based on the financial data, unit sales values and unit raw material costs declined by similar percentages (*** percent and *** percent, respectively) from 2014 to 2016. *See* CR/PR at Table VI-2.

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

[31] CR at III-2-3; PR at III-; Hearing Tr. at 53-55 (Rikhoff); Joint Respondents Posthearing Br. at 3-4.

[32] *See, e.g.*, Respondents Posthearing Br. Exh. 1 at 2.

[33] CR at V-5-6, PR at V-3; Petitioner Posthearing Br. at Att. 3 and Att. 5.

[34] Petitioner Posthearing Br. at Att. 3 and Att. 5; Joint Respondents' Final Comments at 2.

Petitioner argues that conversion fee declines cannot be tied to declines in raw material prices because this component of the price is explicitly distinct from the variable component of price based on raw material prices; therefore, they attribute these declines to subject import competition.[35] However, to the extent that U.S. conversion fees declined over the period, thereby causing U.S. prices to be lower than they would have been absent any conversion fee declines, we find that subject imports were not the cause.[36] As discussed above, factors other than raw material price changes, including decreases in demand and increases in domestic competition, led to downward pricing pressure.

Petitioner provided data showing declines in conversion fees for contracts with purchasers that did not purchase subject imports over the period, which further demonstrates a lack of causal link between conversion fee decreases and the presence of subject imports.[37] ***. We find that this shows that intra-industry competition, in the absence of subject import competition for these accounts, was driving down conversion fees.[38]

Due to the fact that U.S. prices ended the POI higher than they started, the clear relationship between raw material price fluctuations and those of U.S.-produced ESBR, the effect of decreasing demand and increasing domestic competition, and the lack of evidence that lower conversion fees were caused by subject imports, we do not find that subject imports depressed U.S. prices to a significant degree. In addition, none of the factors described above would have led to price increases over the POI beyond those that took place at the end of the POI. We consequently find that subject imports did not have the effect of preventing price increases which otherwise would have occurred to a significant degree.

Accordingly, we do not find that the subject imports caused significant price effects.

[35] Petitioner Posthearing Br. at 3-4.

[36] Any argument that conversion fees for purchasers that sourced subject imports impacted conversion fees on accounts that relied upon domestic supply would be speculative on this record. The conversion fees were different at each account, and even their movements appeared unique to the particular account. *See* Petitioner Posthearing Br. Att. 3.

[37] For example, one of the purchasers with indicated substantial conversion fee declines, ***, did not purchase subject imports. *** U.S. Importer Questionnaire; Lion Producer Questionnaire at IV-21; Petitioner Posthearing Br. Att. 3. *** and *** also did not purchase subject imports, and yet their conversion fees also decreased. *** U.S. Purchaser Questionnaire; *** U.S. Purchaser Questionnaire; Petitioner Posthearing Br. Att. 3; CR/PR at Table V-11.

[38] In fact, as it related to ***. CR at III-5 n.8, PR at III-3 n.8. This is further evidence that ***.

### c. Impact of Subject Imports[39]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[40] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[41]

Between 2014 and 2016, the domestic industry's capacity increased by *** percent, from *** pounds to *** pounds.[42] The domestic industry's production quantity declined by *** percent between 2014 and 2016, from *** pounds to *** pounds.[43] Concurrent with the declines in production, the domestic industry's capacity utilization rate declined from ***

[39] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determinations of sales at less-than-fair value, Commerce found antidumping duty margins of: 19.61 percent for Arlanxeo Brasil S.A., 19.61 percent for Brazil country-wide, 9.66 percent for LG Chem, Ltd., 44.30 percent for Daewoo International Corporation, 44.30 percent for Kumho Petrochemical Co., Ltd., 9.66 for Korea country-wide, 19.52 percent for Industrias Negromex S.A. de C.V.—Planta Altamira, 19.52 for Mexico country-wide, 25.43 percent for Synthos Dwory, and 25.43 percent for Poland country-wide. *Emulsion Styrene-Butadiene Rubber From Brazil: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*, 82 FR 33048, July 19, 2017; *Emulsion Styrene-Butadiene Rubber from the Republic of Korea: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 82 FR 33045, July 19, 2017; *Emulsion Styrene-Butadiene Rubber From Mexico: Final Affirmative Determination of Sales at Less Than Fair Value*, 82 FR 33062, July 19, 2017; *Emulsion Styrene-Butadiene Rubber From Poland: Final Affirmative Determination of Sales at Less Than Fair Value*, 82 FR 33061, July 19, 2017. We take into account in our analysis the fact that Commerce has made these final findings with respect to each subject country. In addition to this consideration, our impact analysis has considered other factors related to the domestic industry's condition.

[40] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[41] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[42] CR/PR at Table C-1. The domestic industry's capacity remained at *** pounds during each interim period.

[43] CR/PR at Table C-1. The domestic industry's production decreased by *** percent between interim periods. *Id.*

percent in 2014 to *** percent in 2016.[44] The domestic industry's employment indicators also decreased over the POI.[45]

While U.S. shipments declined by *** percent between 2014 and 2016, apparent U.S. consumption declined by *** percent during the same time period.[46] As a result, the domestic industry's market share increased from *** percent in 2014 to *** percent in 2016.[47] The domestic industry's end-of-year inventories decreased by *** percent between 2014 and 2016.[48]

As a result of lower U.S. shipments and lower U.S. prices in 2016 compared to earlier years, the industry's net sales revenues decreased by *** percent between 2014 and 2016.[49] The domestic industry's operating income as a ratio to net sales declined by *** percentage points between 2014 and 2016, falling from *** percent in 2014 to *** percent in 2016.[50] Gross profit fell from *** in 2014 and *** in 2015 to *** in 2016, while net income fell from *** in 2014 and *** in 2015 to *** in 2016.[51] The industry's capital expenditures increased by *** percent between 2014 and 2016, while the industry's research and development expenses decreased by *** percent.[52]

Most of the domestic industry's production, employment, and financial indicators declined over the POI. However, because cumulated subject imports did not increase either absolutely or relative to consumption, and did not cause significant price effects, we do not find the domestic industry to be materially injured by reason of the subject imports. The domestic industry's output-related indicia, including U.S. shipments, production, and employment, all

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[44] CR/PR at Table C-1. The domestic industry's capacity utilization was *** percent in interim 2016 and *** percent in interim 2017. *Id.*

[45] CR/PR at Table C-1. The number of production workers in the domestic industry declined by *** percent between 2014 and 2016, and decreased by *** percent between interim 2016 and interim 2017. *Id.* The number of hours worked declined by *** percent between 2014 and 2016, and decreased by *** percent between interim periods. *Id.* Wages paid increased by *** percent between 2014 and 2016, but decreased by *** percent between interim periods. *Id.* Hourly wages increased by *** percent between 2014 and 2016, and by *** percent between interim periods. *Id.* Productivity decreased by *** percent between 2014 and 2016, but increased by *** percent between interim periods. *Id.*

[46] CR/PR at Table C-1. Between interim 2016 and interim 2017, U.S. shipments decreased by *** percent, and apparent U.S. consumption decreased by *** percent. *Id.*

[47] CR/PR at Table C-1. The domestic industry's share of apparent U.S. consumption was *** percent in interim 2016 and *** percent in interim 2017. *Id.*

[48] CR/PR at Table C-1. The domestic industry's inventories decreased by *** percent between interim 2016 and interim 2017. *Id.*

[49] CR/PR at Table C-1. Between interim 2016 and interim 2017, net sales value increased by *** percent, driven by higher prices despite a continued decline in the quantity of net sales. *Id.*

[50] CR/PR at Table C-1. Between interim 2016 and interim 2017, the industry's operating income margin increased from *** percent to *** percent. *Id.*

[51] CR/PR at Table C-1. Gross profit improved from *** in interim 2016 to *** in interim 2017. *Id.* Net income was *** in interim 2016 and *** in interim 2017. *Id.*

[52] CR/PR at Table VI-6. Capital expenditures increased by *** percent between interim periods, and research and development expenses increased by *** percent. *Id.*

decreased to a lesser extent than apparent U.S. consumption, which in turn was lower as a result of declining demand for certain end-use products as well as substitution of SSBR for ESBR in several applications.

Lower demand for ESBR also was one of several factors contributing to lower U.S. prices, and therefore lower industry revenues. As discussed above, raw material price changes also contributed to lower U.S. prices in 2016 in addition to increased availability of U.S.-produced ESBR. As a result of these lower U.S. prices and revenues, the industry's financial performance was at its lowest point in 2016. However, 2016 was also the point at which subject import volumes were the lowest, and we have not found that subject imports contributed to adverse price trends. Therefore, we do not find that subject imports caused the domestic industry's financial performance to be worse than it would have been otherwise.[53]

Petitioner argues that subject imports increased in 2014 over their 2013 volume, and failed to retreat from the market in 2015 and 2016 despite all U.S. producers competing for sales in those years.[54] As discussed above, we view the data from January 2014 to March 2017 as providing a sufficient basis for analyzing trends in volume and market share. Nonetheless, we note that the volume of subject imports in 2014 was higher than 2013 levels in large part due to the change in ownership of the Baton Rouge, Louisiana facility, which precluded East West from competing in the critical contract market for the entirety of 2014.[55] Subsequently, subject imports declined more rapidly than apparent U.S. consumption, and the domestic industry gained market share over the POI. Petitioner's argument that subject imports did not retreat rapidly enough is unconvincing. Purchasers indicated that they continued to purchase subject imports in order to ensure security of supply,[56] and it is unrealistic that subject imports would vacate the market fully and immediately upon the re-entry of a U.S. production facility under new ownership.

Petitioner argues that East West was forced to file for chapter 11 bankruptcy in April 2017 as a result of competition with subject imports. We observe that over the course of the investigation, narratives concerning the role of subject imports in East West's decision to file for Chapter 11 bankruptcy have changed, from being a direct cause to having no role whatsoever.[57] Notwithstanding these conflicting accounts, we find that the record does not support the contention that declining subject import volumes, which we have found did not gain market share at the expense of the domestic industry or have significant price effects on U.S. prices, forced East West to declare bankruptcy. Therefore, the issues affecting East West that caused it to file for bankruptcy were not the result of subject import competition.

In view of the foregoing, we find that subject imports did not have a significant impact on the domestic industry.

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[53] We further note that in interim 2017 the decrease in apparent U.S. consumption slowed, raw material prices rebounded, and one of the three U.S. producers ceased production. As a result, U.S. prices and financial results were at the highest levels of the POI, notwithstanding a slight increase in U.S. shipments of subject imports.

[54] Petitioner Posthearing Br. at 8.

[55] Hearing Tr. at 53-55 (Rikhoff); Joint Respondents Posthearing Br. at 3-4.

[56] CR at II-28, PR at II-19; CR/PR at Table V-12; Hearing Tr. 91-95 (Pauken).

[57] *See* Respondents Posthearing Br. Ex. 1 at 2.

## II. No Threat of Material Injury by Reason of Cumulated Subject Imports

### a. Legal Standard

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the domestic industry is threatened with material injury by reason of the subject imports by analyzing 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."[58] The Commission may not make such a determination "on the basis of mere conjecture or supposition," and considers the threat factors "as a whole" in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued.[59] In making our determination, we consider all statutory threat factors that are relevant to these investigations.[60]

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[58] 19 U.S.C. § 1677(7)(F)(ii).

[59] 19 U.S.C. § 1677(7)(F)(ii).

[60] These factors are as follows:

(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,

(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,

…

(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).

19 U.S.C. § 1677(7)(F)(i). To organize our analysis, we discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Statutory threat factors (I), (II), (III), (V), and (VI) are discussed in the analysis of subject import volume. Statutory threat factor (IV) is discussed in the analysis of subject import price effects. Statutory factors (VIII) and (Continued...)

### b. Cumulation for Threat

Under section 771(7)(H) of the Tariff Act, the Commission may "to the extent practicable" cumulatively assess the volume and price effects of subject imports from all countries as to which petitions were filed on the same day if the requirements for cumulation in the material injury context are satisfied.[61]

As mentioned above, we join our colleagues in finding that there is a reasonable overlap of competition among subject imports from all subject countries and between subject imports from each country and the domestic like product. The considerations discussed in Section IV of the Views of the Commission apply to our decision to cumulate subject imports for the purposes of our threat determinations.

The record does not indicate that there would likely be any significant difference in the conditions of competition between subject imports from the four countries. Kumho argues that subject imports from Korea should not be cumulated with the other subject countries for purposes of threat because of differing volume and pricing trends.[62] We recognize that the volume of subject imports from Korea declined over the POI, both in absolute terms and relative to apparent U.S. consumption, between 2014 and 2016, and further decreased between interim 2016 and interim 2017.[63] However, we note that in terms of pricing trends, subject imports from Korea generally undersold the domestic like product in more instances than it oversold, and the quantity undersold was larger than the quantity oversold.[64] On balance, we do not find that subject imports from Korea exhibited significant differing volume and pricing trends demonstrating that Korean ESBR competes, or would likely compete, differently in the U.S. market than ESBR from the other subject countries.[65]

For these reasons, we conclude that it is appropriate to exercise our discretion to cumulate subject imports from Brazil, Korea, Mexico, and Poland for the purposes of our threat analysis.

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(…Continued)
(IX) are discussed in the analysis of impact. Statutory (VII) concerning agricultural products is inapplicable to these investigations.

[61] 19 U.S.C. § 1677(7)(H).

[62] Kumho Prehearing Br. at 3-4.

[63] CR/PR at Table IV-2.

[64] Subject imports from Korea undersold the domestic like product in 56 of 73 instances, by 61.6 million pounds, and at margins of underselling ranging from 0.3 to 30.8 percent. CR/PR at Table V-10. In the remaining 17 instances, subject imports from Korea oversold the domestic like product, by 30.2 million pounds, and at margins of overselling ranging from 0.7 to 24.6 percent. CR/PR at Table V-10.

[65] Kumho also identifies differing capacity utilization rates as a basis for not cumulating Korea with other subject countries. Kumho Prehearing Br. at 4-5. However, as Kumho acknowledges in its prehearing brief, Poland had the highest capacity utilization rates during the POI, Brazil had slightly lower capacity utilization rates in comparison to Korean's capacity utilization rates, and Mexico had the lowest capacity utilization rates. Kumho Prehearing Br. at 4-5; CR/PR at Table VII-3, Table VII-8, Table VII-12, and Table VII-16. On balance, we also do not find Korea's capacity utilization rates to be significantly different enough from the other subject countries to warrant exercising our discretion to not cumulate Korea with Brazil, Mexico, and Poland for purposes of our threat analysis.

### c. Likely Volume

The Commission received questionnaire responses from foreign producers and/or exporters accounting for the vast majority of the volume of subject imports over the POI.[66] Data reported by these firms indicate stable industry trends with respect to excess capacity and export orientation, which does not suggest that a shift in exports to the United States within the imminent future is likely. The capacity in the subject countries decreased by 13.5 percent between 2014 and 2016, while production decreased by 11.9 percent.[67] The foreign industries' capacity utilization was stable and high, increasing from 85.1 percent in 2014 to 86.7 percent in 2016.[68] Although the industries were highly export-oriented, with between 69.4 and 71.0 percent of their total shipments going to export markets, the large majority of these exports went to non-U.S. markets. Exports to the United States as a share of total shipments decreased steadily from 6.8 percent in 2014 to 5.3 percent in 2016.[69]

No other statutory factor indicates that a significant increase in subject imports is likely in the imminent future. The subject foreign industries' inventories relative to total shipments decreased from 7.0 percent in 2014 to 4.7 percent in 2016,[70] while U.S. importers' inventories of subject merchandise, as a ratio to U.S. shipments of those imports, were relatively stable at *** percent in 2014 and *** percent in 2016.[71] The subject industries had limited ability to shift production from alternative products to the production of ESBR. Responding producers from Korea did not report producing any alternative products on the equipment used to make ESBR, while producers in Brazil, Mexico, and Poland reported that a large majority of their production was dedicated to ESBR.[72] Although there have been trade restrictions in third-country markets affecting ESBR exports from the subject industries at certain points of the POI, they are no longer in place, and we do not speculate about the effects of any future trade remedies under consideration by foreign governments.[73]

As discussed above, subject imports decreased in each year of the POI. Although subject imports continued to decrease in interim 2017 compared to interim 2016, U.S. shipments of subject imports increased between interim periods, both in absolute terms and

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[66] CR at VII-3, VII-10, VII-16, VII-22, PR at VII-3, VII-7, VII-11, VII-15.

[67] CR/PR at Table VII-19. Capacity remained roughly even between interim 2016 and interim 2017. Production increased by 9.3 percent between interim 2016 and interim 2017. *Id.*

[68] CR/PR at Table VII-19. Capacity utilization increased from 84.9 percent in interim 2016 to 93.1 percent in interim 2017. *Id.*

[69] CR/PR at Table VII-19. Exports to the United States accounted for 5.0 percent of total shipments in interim 2016 and 6.0 percent in interim 2017. *Id.*

[70] CR/PR at Table IV-19. End-of-period inventories were equivalent to 5.1 percent of the subject industries' total shipments in interim 2016 and 6.3 percent in interim 2017.

[71] CR/PR at Table IV-20. U.S. importers' inventories of subject merchandise, as a ratio to U.S. shipments of that merchandise, fell from *** percent in interim 2016 to *** percent in interim 2017. *Id.*

[72] CR at VII-13, PR at VII-8; CR/PR at Tables VII-4, VII-13, and VII-17.

[73] CR at VII-31-32, PR at VII-20. There are several additional potential trade remedies that may be imposed on subject imports within the imminent future, but we do not speculate about the effects that potential remedies may have on the subject industries' exports. *Id*.

relative to apparent U.S. consumption.[74] However, this increase in the first quarter of 2017 came as East West was about to declare bankruptcy, which was formally filed on April 4, 2017, and leave the U.S. market for ESBR. When asked how their purchasing patterns had changed over the POI, U.S. purchasers reported that they switched their sourcing to subject imports in light of East West's bankruptcy.[75] Therefore, the slight increase in subject imports' market share at the end of the period was the result of unanticipated changes in the domestic industry by virtue of a U.S. producer leaving the U.S. market.[76]

The trends over the POI have demonstrated that subject imports have generally decreased, and will likely continue to do so in the imminent future. To the extent subject imports increase in response to changes in available domestic supply, such increases are likely to be temporary in nature. In light of these considerations, we find it likely that subject imports will remain in the U.S. market in significant volumes, but we do not find that a significant increase in subject imports is imminent.

**d. Likely Price Effects**

In our discussion above, we found that underselling by the subject imports was prevalent. However, we also found that notwithstanding the significant volume of subject imports sold at lower prices during the POI, the subject imports did not have a significant adverse effect on prices for the domestic like product. Instead, we found that domestic price fluctuations were primarily affected by changes in raw material prices, in addition to declining apparent U.S. consumption and changes in the domestic industry's available supply. These conditions are unlikely to change in the imminent future, and as discussed above, it is also unlikely that there will be a significant increase in subject import volumes.

We consequently find that imports of the subject merchandise are not likely to enter at prices that will have a significant depressing or suppressing effect on domestic prices or to increase demand for further imports.

**e. Likely Impact**

Although the domestic industry has experienced declines in performance and operating income levels, we have found no significant causal relationship between subject imports and the domestic industry's performance during the period. Subject import volumes decreased throughout the POI, and did not cause adverse price effects or lead to a loss in the domestic industry's market share.

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[74] CR/PR at Table IV-2 and Table C-1.

[75] CR at II-22, PR at II-13.

[76] We note that, notwithstanding the decrease in U.S. producers' market share between interim 2016 and 2017, U.S. producers' market share in the first quarter of 2017 was higher than it was in 2014, while cumulated subject imports' market share in interim 2017 was lower than it was in 2014. CR/PR at Table C-1. In addition, *** and *** increased their net sales, both on a quantity and value basis, between interim 2016 and interim 2017. CR/PR at Table VI-3.

Although the domestic industry is in a vulnerable condition due to its poor financial performance throughout the POI, its condition improved substantially in interim 2017, coinciding with the shutdown of the least profitable U.S. producer, a substantial increase in raw material prices, and a less sharp decline in apparent U.S. consumption.

We find no evidence indicating that subject imports are likely to have a significant impact on the domestic industry in the imminent future. As discussed above, we do not find it likely that there will be a significant increase of subject imports in the imminent future, and to the extent that there are temporary increases, these will likely be in response to changes in available domestic supply. Although underselling may persist in the imminent future, as occurred throughout the POI, subject imports are not likely to have significant price depressing or suppressing effects on prices for U.S.-produced ESBR. Based on these considerations, we find that subject imports are not likely to have a significant impact on the domestic industry in the imminent future.

In view of the foregoing, we conclude that an industry in the United States is not threatened with material injury by reason of subject imports.

## III. Conclusion

For the reasons stated above, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of ESBR from Brazil, Korea, Mexico, and Poland that are sold in the United States at less-than-fair value.

# PART I: INTRODUCTION

## BACKGROUND

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Lion Elastomers, LLC ("Lion"), Port Neches, Texas, and East West Copolymer, LLC ("East West"),[1] Baton Rouge, Louisiana on July 21, 2016, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of certain emulsion styrene-butadiene rubber ("ESBR")[2] from Brazil, Korea, Mexico, and Poland.[3] The following tabulation provides information relating to the background of these investigations.[4] [5]

| Effective date | Action |
|---|---|
| July 21, 2016 | Petition filed with Commerce and the Commission; institution of Commission investigations (81 FR 49262, July 27, 2016) |
| August 10 | Commerce's notice of initiation (81 FR 55438, August 19, 2016) |
| September 6 | Commission's preliminary determinations 81 FR 62762, September 12, 2016) |
| February 24, 2017 | Commerce's preliminary determinations (Brazil 82 FR 11538; Korea 82 FR 11536; Mexico 82 FR 11534; Poland 82 FR 11531; ); scheduling of final phase of Commission investigation (82 FR 13503, March 13, 2017) |
| June 29 | Commission's hearing |
| July 19 | Commerce's final determinations (82 FR 33048 (Brazil), 82 FR 33045 (Korea), 82 FR 33062 (Mexico), 82 FR 33061 (Poland), July 19, 2017) |
| August 3 | Commission's vote |
| September 1 | Commission's views |

[1] ***. Letter from ***, respondents' joint post hearing brief, exh.2.

[2] See the section entitled "The Subject Merchandise" in *Part I* of this report for a complete description of the merchandise subject to these investigations.

[3] The petition is also supported by the International Union of Operating Engineers, Locals 216 and 426, which represents, respectively the employees producing ESBR at the East West Copolymers plant in Baton Rouge, Louisiana, and the Goodyear Chemical plant in Houston, Texas. The petition is also supported by the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO, CLC, Local 13-228-03, which represents the employees producing ESBR at the Lion plant in Port Neches, Texas. Petition, p. 3 and conference transcript p. 9 (McGrath).

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

[5] A list of witnesses appearing at the hearing are presented in Appendix B of this report.

## STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

### Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

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

> *In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.. . .In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . .(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more*

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

*advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.*

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

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

**Organization of report**

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

**MARKET SUMMARY**

ESBR is generally used in the production of rubber tires. The U.S. producers of ESBR are Lion, East West, and The Goodyear Tire & Rubber Company ("Goodyear"), while leading producers of ESBR outside the United States include ARLANXEO Brasil S.A. ("Arlanxeo Brazil") (formerly LANXESS) of Brazil, Kumho Petrochemical Co., Ltd. ("Kumho") and LG Chem, Ltd. ("LG Chem") of Korea, Industrias Negromex, S.A. de C.V. ("Negromex") of Mexico, and SYNTHOS S.A. ("Synthos") of Poland. The leading U.S. importer of ESBR from Brazil is ***; from Korea are *** and ***; from Mexico is INSA LLC; and from Poland is Harwick Standard Distribution Corp. ("Harwick"). Leading importers of ESBR from nonsubject countries (primarily Germany, Russia, and South Africa) include ***, ***, and ***. U.S. purchasers of ESBR are most commonly end users in the tire manufacturing market. Leading purchasers, in order of size, are ***, ***, and ***.

Apparent U.S. consumption of ESBR totaled approximately *** pounds ($***) in 2016. In 2016 three firms produced ESBR in the United States. U.S. producers' U.S. shipments of ESBR totaled *** pounds ($***) in 2016, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from subject sources totaled *** pounds ($***) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** ($***) in

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

2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

## SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, tables C-1 and C-2.[8] Except as noted, U.S. industry data are based on questionnaire responses of three firms that accounted for all known U.S. production of ESBR during 2016.[9] Usable questionnaire importer responses were received from 15 companies.[10] Based on a comparison of these firms' reported U.S. imports and import statistics, the responding importers represent 100.0 percent of U.S. imports from Brazil in 2016, 92.2 percent from Korea, 100.0 percent U.S. imports from Mexico,[11] 99.9 percent U.S. imports from Poland,[12] and 79.5 percent from nonsubject countries.[13] Excepted as noted, U.S. imports in this report are based on data submitted in response to Commission questionnaires supplemented as appropriate with import statistics.[14]

Usable foreign producer/exporter questionnaire responses were received from one producer in Brazil, two in Korea, one in Mexico, and one in Poland. According to the responding

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[8] Summary of data collected in the preliminary phase of these investigations is presented in appendix C, tables C-3 and C-4.

[9] In April 2017, East West filed for Chapter 11 bankruptcy. East West did not provide a questionnaire response. *East West Copolymer bankruptcy scheduled for April 12*, Rubber News, April 11, 2017, found at http://www.rubbernews.com/article/20170411/NEWS/170419987?template=printart.

The data for East West in this report, unless otherwise noted, is based on the firm's response to the U.S. producers questionnaire in the preliminary-phase of these investigations (2014-15) and limited trade and financial data (2016) provided by petitioners' counsel. Email from ***, June 9, 2017.

[10] Twelve firms certified that they did not import ESBR from any source, at any time since January 1, 2014. One of these firms, ***. Staff telephone interview with ***, August 12, 2016. In addition, *** Email from ***.

The largest U.S. importer of imports from China under 4002.19.0015 and 4002.19.0019, ***, stated in the preliminary phase that it did not import ESBR, while the third largest U.S. importer of imports from China under those HTS numbers, ***, certified that it did not import ESBR since January 1, 2014.

In addition, *** did not provide a questionnaire response but reported that it imported ***. Email from ***, August 8, 2016.

[11] Negromex stated that it is Mexico's only producer of ESBR and INSA is its exclusive U.S. importer. Negromex's postconference brief, p. 1.

[12] Synthos stated that it is the sole Polish producer and exporter to the United States of ESBR. Synthos postconference brief, p.1.

[13] Estimates for U.S. imports of ESBR from Korea are based on imports entering under HTS numbers 4002.19.0015 and 4002.19.0019. Conference transcript, p. 32 (Warlick) and petition, p. 12. U.S. imports from every other source are based on HTS number 4002.19.0015. These calculations account for those firms who certified that they did not import ESBR at any time from any source since January 1, 2014.

[14] Questionnaire data are supplemented with nonresponding U.S. importers' U.S. imports under HTS number 4002.19.0015 and, for Korea only, also under HTS number 4002.19.0019.

producers and based on International Institute of Synthetic Rubber Producers ("IISRP") capacity data, these producers accounted for all of the production in their respective countries.

## PREVIOUS AND RELATED INVESTIGATIONS

ESBR has been the subject of one prior antidumping duty proceeding in the United States. On April 1, 1998, Ameripol Synpol Corp., Akron, Ohio, and DSM Copolymer of Baton Rouge, Louisiana, filed petitions alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV imports of ESBR from Brazil, Korea, and Mexico. The Commission determined that an industry in the United States was not materially injured or threatened with material injury by reason of imports of ESBR from Brazil, Korea, or Mexico.[15]

## NATURE AND EXTENT OF SALES AT LTFV

On February 24, 2017, Commerce published a notice in the *Federal Register* of its preliminary determination of sales at LTFV with respect to imports from Brazil,[16] Korea,[17] Mexico,[18] and Poland.[19] On July 19, 2017, Commerce published its final determination of sales at LTFV.[20] Table I-1 present Commerce's dumping margins with respect to imports of product from Brazil, Korea, Mexico, and Poland.

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[15] *Certain Emulsion Styrene-Butadiene Rubber from Brazil, Korea, and Mexico, Inv. Nos. 731-TA-794, 795 and 796 (Final)*, USITC Pub. 3190 (May 1999), p. 1.

[16] *Emulsion Styrene-Butadiene Rubber From Brazil: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Negative Determination of Critical Circumstances, Postponement of Final Determination, and Extension of Provisional Measures*, 82 FR 11538, February 24, 2017.

[17] *Emulsion Styrene-Butadiene Rubber From the Republic of Korea: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Affirmative Determination of Critical Circumstances, in Part, Postponement of Final Determination, and Extension of Provisional Measures* , 82 FR 11536, February 24, 2017.

[18] *Emulsion Styrene-Butadiene Rubber From Mexico: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 82 FR 11534, February 24, 2017.

[19] *Emulsion Styrene-Butadiene Rubber From Poland: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*, 82 FR 11531, February 24, 2017.

[20] *Emulsion Styrene-Butadiene Rubber From Brazil: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*, 82 FR 33048, July 19, 2017; *Emulsion Styrene-Butadiene Rubber from the Republic of Korea: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 82 FR 33045, July 19, 2017; *Emulsion Styrene-Butadiene Rubber From Mexico: Final Affirmative Determination of Sales at Less Than Fair Value*, 82 FR 33062, July 19, 2017; *Emulsion Styrene-Butadiene Rubber From Poland: Final Affirmative Determination of Sales at Less Than Fair Value*, 82 FR 33061, July 19, 2017.

**Table I-1**
**ESBR: Commerce's preliminary weighted-average LTFV margins with respect to imports from Brazil, Korea, Mexico, and Poland**

| Country | Exporter | Preliminary dumping margin (*percent*) | Final dumping margin (*percent*) |
|---|---|---|---|
| Brazil | Arlanxeo Brasil S.A. | 34.44 | 19.61 |
| | All others | 34.44 | 19.61 |
| Korea | LG Chem, Ltd. | 11.63 | 9.66 |
| | Daewoo International Corporation. | 44.30 | 44.30 |
| | Kumho Petrochemical Co, Ltd | 44.30 | 44.30 |
| | All others | 11.63 | 9.66 |
| Mexico | Industrias Negromex S.A. de C.V.—Planta Altamira | 13.77 | 19.52 |
| | All others | 13.77 | 19.52 |
| Poland | Synthos Dwory | 25.43 | 25.43 |
| | All others | 25.43 | 25.43 |

Source: 82 FR 11531, 82 FR 11534, 82 FR 11536, and 82 FR 11538, February 24, 2017, and 82 FR 33048, 82 FR 33045, 82 FR 33062, and 82 FR 33061, July 19, 2017.

## THE SUBJECT MERCHANDISE

### Commerce's scope

Commerce has defined the scope of these investigations as follows:[21]

> *For purposes of these investigations, the product covered is cold-polymerized emulsion styrene-butadiene rubber (ESB rubber). The scope of the investigations includes, but is not limited to, ESB rubber in primary forms, bales, granules, crumbs, pellets, powders, plates, sheets, strip, etc. ESB rubber consists of non-pigmented rubbers and oil-extended non-pigmented rubbers, both of which contain at least one percent of organic acids from the emulsion polymerization process. ESB rubber is produced and sold in accordance with a generally accepted set of product specifications issued by the International Institute of Synthetic Rubber Producers (IISRP). The scope of the investigations covers grades of ESB rubber included in the IISRP 1500 and 1700 series of synthetic rubbers. The 1500 grades are light in color and are often described as ''Clear'' or ''White Rubber.'' The 1700 grades are oil-extended and thus darker in*

[21] *Emulsion Styrene-Butadiene Rubber from the Republic of Korea: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 82 FR 33045, July 19, 2017.

*color, and are often called ''Brown Rubber.'' Specifically excluded from the scope of these investigations are products which are manufactured by blending ESB rubber with other polymers, high styrene resin master batch, carbon black master batch (i.e., IISRP 1600 series and 1800 series) and latex (an intermediate product).*

### 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 the following provisions of the 2017 HTS: 4002.19.0015 (ESBR in bales) and 4002.19.0019 (a residual or "basket" line for SBR, including ESBR in forms other than bales).[22] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

## THE PRODUCT

### Description and applications[23]

Styrene-Butadiene Rubber (SBR) is a random copolymer of styrene and butadiene. There are two major types of SBR, emulsion SBR, and solution SBR, each based on different manufacturing processes, and having different properties. Emulsion SBR, including subject scope ESBR, is produced in several grades by aqueous emulsion processes, while non-scope solution SBR (SSBR) is produced in an anhydrous organic solution process. Each form of SBR has numerous downstream end use applications, but most particularly as components in tire treads, ESBR in diverse tire applications, while the more-expensive solution SBR (SSBR) is better suited for high performance original equipment (OE) tire applications.[24] [25]

The flow diagram of figure I-1 provides a breakout of the various forms of SBR rubber.

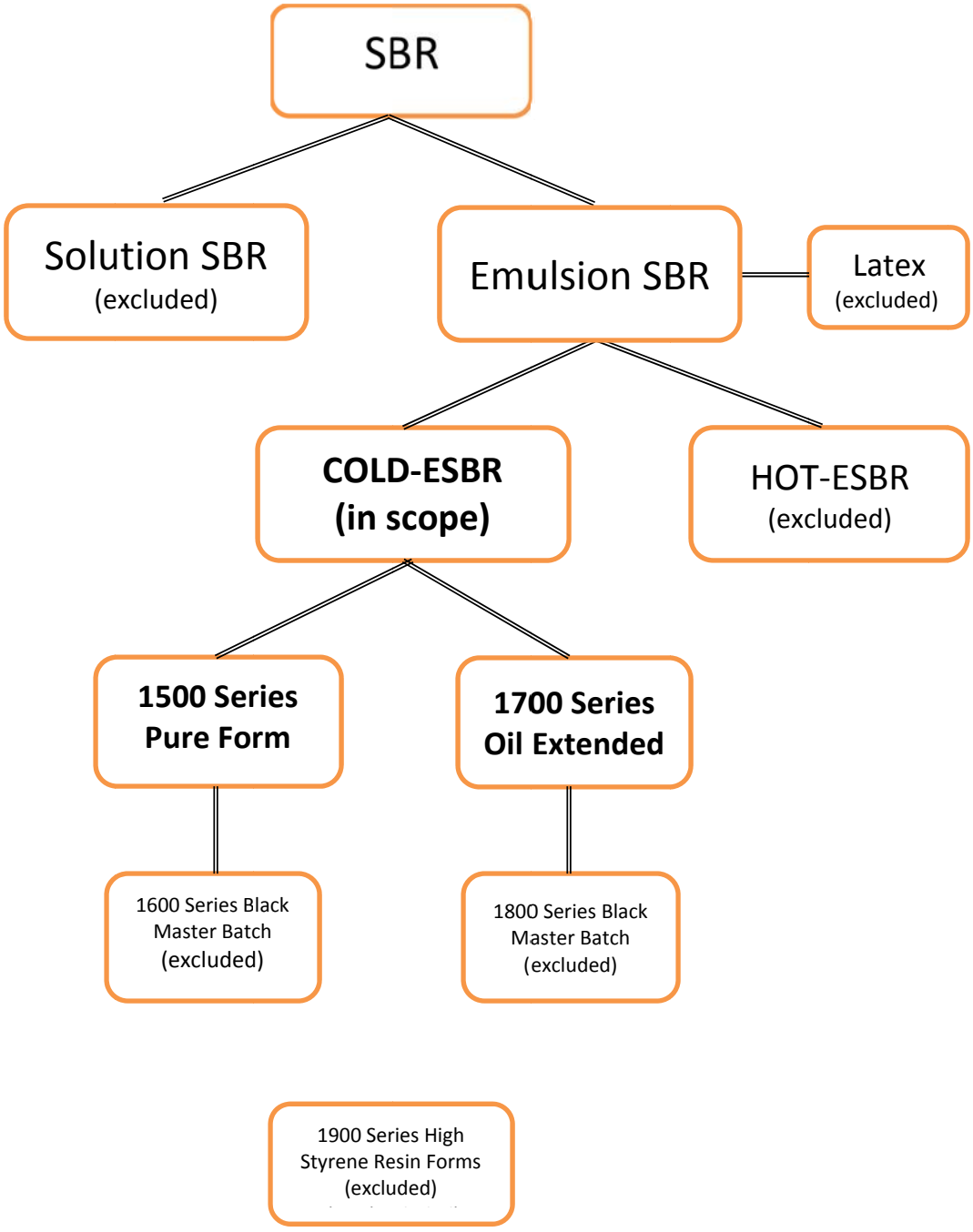
[22] The general duty rate on the subject goods is free under subheading 4002.19.00.

[23] Information based on *Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland, Investigation Nos. 731-TA-1334-1337 (Preliminary),* USITC Publication 4636, September 2016, and updates thereof.

[24] "The Synthetic Rubber Manual," IISRP, 2012; Hearing transcript, pp. 20-21 (Zeringue); p. 27 (Howard); p. 57 (Rikhoff); p. 58 (Szamosszeggi).

[25] The cold emulsion SBR process from which subject ESBR is manufactured, provides significantly better physical properties than that of the older nonsubject hot emulsion SBR process, whose products are limited principally to the adhesives sector. "The Synthetic Rubber Manual," IISRP, 2012.

**Figure I-1**
**ESBR: Styrene-Butadiene Rubber (SBR) Flow Diagram**




Source: The Synthetic Rubber Manual, IISRP, 2012.

ESBR is a vulcanizable synthetic rubber copolymer elastomer containing about 25 percent styrene and 75 percent butadiene by weight, and one of the most widely used polymers in the world today. The subject scope products consist of the 1500 and 1700 series of ESBR synthetic rubbers of styrene and butadiene copolymer, as defined by IISRP, and generally recognized by the international industry.[26] [27] Subject ESBR elastomer is produced by a cold aqueous emulsion process at 41-55 degrees Fahrenheit, and finished as a dry, or oil modified crumb-like polymeric material typically containing about 23.5 percent styrene, which is most often sold pressed into bales of up to about 80 pounds;[28] however, the petition covers ESBR in all physical forms regardless of type of packaging.[29] The 1500 series is considered a "neat" or pure form of ESBR, while the 1700 series contains petroleum-based processing extender oil as a homogenized component of the rubber particle.[30] The oil component of the rubber particle aids in the eventual processing of ESBR compounds that are extruded, mixed, and rolled into rubber goods. The styrene content of ESBR can be modified to provide products with special advantages and properties. A "normal" level of styrene is 23.5 percent, but in selected cases a lower styrene content polymer may be obtained that has advantages in mixing, shaping, building, and curing.[31]

ESBR is predominately used for the production of car and light truck tires and truck tire retread compounds, some 70 percent of which is reportedly used for rubber tires, particularly in the replacement market. It is also used in a variety of other products, including conveyor belts, shoe soles, some kinds of hoses, roller coverings, flooring, and other uses.[32] End users of ESBR formulate compounds prior to the production of rubber goods. Processing begins by breaking down the bales through heating, mixing, and rolling in order to plasticize the rubber. The time required for breakdown is much less for ESBR than for natural rubber, which is compounded in a similar manner. Many ingredients such as carbon black, oils, antioxidants, processing aids, vulcanizing agents, silica, and zinc oxide are often added to make various recipes. End users may also formulate compounds by blending subject ESBR with excluded polymer types, including emulsion SBR sources such as carbon black master batch ("CBMB"),

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[26] "The Synthetic Rubber Manual," IISRP, August 2012, http://iisrp.com/WebPolymers/AboutRubber/09ESBR16Aug2012.pdf, retrieved May 22, 2017.

[27] The characteristics and uses of the subject ESBR have reportedly not changed materially since the original investigation in 1998-99. Petition, p. 8.

[28] Conference transcript, p. 119 (Isaacs). Butadiene content makes up most the remainder in the pure polymer, "The Synthetic Rubber Manual," IISRP, August 2012.

[29] On May 26, 2017, Lion Copolymer purchased assets of bankrupt East West Copolymer, closed on March 31, 2017. The site was to remain idle pending options. "Lion Elastomers completed the purchase of assets from East West Copolymer," Lion News Release, June 2, 2017, http://www.lioncopolymer.com/main/news_item?id=68769, retrieved June 12, 2017.

[30] The oil content of 1700 grades may vary typically from 23 percent into the 30 percent range, and consist of naphthenic, paraffinic, and aromatic types. East West and Lion material and safety data sheets, http://www.ewcopolymer.com; and www.lionelastomers.com , retrieved May 22, 2017.

[31] Petition, pp. 6-7.

[32] Conference transcript, p. 26 (Isaacs). "The Synthetic Rubber Manual," IISRP, August 2012.

and with solution styrene-butadiene rubber ("SSBR")[33] made by the solution process.[34] SSBR is more expensive to produce, but is used in high performance OE tire production, primarily because it imparts a lower rolling resistance and helps meet mileage and fuel consumption standards both in the United States and Europe.[35]

Unlike natural rubber, peptides are not needed, and less zinc oxide and fatty acid are needed to accelerate the breakdown of ESBR. ESBR has better extrusion properties than natural rubber and has a lesser tendency to scorch, and also better tread wear properties than natural rubber, while natural rubber has better grip.[36] Thus, the two may be blended,[37] and ESBR can be blended with all diene polymers in any proportion to adjust the final properties and economy of the finished product. Rubber tires, particularly tire treads, are the largest end use for ESBR, and may require a number of differently formulated compounds depending upon the characteristics desired in each tire component. Tire components such as tire tread, sidewall, bead and carcass generally use specialized formulations.[38] [39]

There are several IISRP SBR series of products that are not covered by the petition. They are described as significantly different kinds of synthetic rubber materials or products. For example, the 1600 and 1800 series are grades of emulsion SBR carbon black masterbatch (CBMB) produced by a different process using separate production equipment, and shipped in solid slabs with a hard rubber consistency. Other categories of emulsion SBR not covered by the scope definition are the 1000 and 1900 series of synthetic rubbers, as specified under the IISRP numbering system. Unlike subject cold process ESBR, the 1000 series is a "hot" polymerized series of emulsion SBR produced at about 106 degrees Fahrenheit, and employed in a variety of end uses other than those to which subject ESBR is best suited. The 1900 series of emulsion SBR is a high-styrene synthetic rubber having resin characteristics that is used in a variety of non-tire end uses. The SSBR solution rubber process 1200 series is also excluded as previously noted. ESBR colloidal liquid latex is used in fabric coatings, carpet backing, paper coatings, and gloves.[40]

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[33] Nonsubject SSBR 1200 series is produced by a solution process as opposed to the emulsion process, and along with 1600 and 1800 series CBMB emulsion ESBRs, requires different production facilities. Conference transcript, pp. 26-27 (Isaacs).

[34] Petition, p. 7.

[35] Hearing transcript, pp. 20-21 (Zeringue). "The Synthetic Rubber Manual," IISRP, August 2012.

[36] Conference transcript, p. 27 (Isaacs).

[37] Usually 40%/60% natural to synthetic rubber, up to 60%/40%. Hearing transcript, p. 66 (Zeringue).

[38] Petition, pp. 7-8, and exhibits I-8 and I-9. "The Synthetic rubber Manual," IISRP, August 2012.

[39] ESBR is used in higher proportions in car and light truck tires relative to heavy-duty truck and bus tires which use higher loadings of polybutadine rubber (BR) and natural rubber (NR) blends. ***.

[40] Hearing transcript, p. 65 (Zeringue).

**Manufacturing processes**

Subject ESBR is made by a continuous cold aqueous emulsion latex process at 41-55 degrees Fahrenheit, known technically as emulsion copolymerization, a free radical mechanism that joins individual styrene and butadiene molecules together in copolymer chains. The continuous manufacturing process is accomplished using five main ingredients which are added through a series of several reactors connected in a series: (1) water, (2) the two monomers, styrene and butadiene, (3) soap emulsifier, (4) a polymer "modifier" used to control molecular structure, and (5) an "initiator" designed to drive the polymerization reaction. When about 60 percent of the monomers have been converted to polymer chains, the process is stopped by an "inhibitor" or "short-stop," designed to prevent large increases in undesirable polymer chain branching and the commencing of polymer crosslinking beyond that point. [41] [42]

The resulting ESBR latex emulsion is next purified by removing unreacted butadiene and styrene for recycle via flash distillation and steam stripping, together with the addition of a stabilizing antioxidant. The 1500 series latex product at this point is ready for transfer to the finishing section, while in the case of the oil-extended 1700 series, the emulsified process oil must first be added to the purified rubber latex for intimate homogenization.[43]

The second phase of the continuous process, or finishing line process, is accomplished by first acidifying and coagulating the latex, thus separating the solid ESBR rubber particles from the water of the latex. The coagulated crumb is then washed, dewatered, dried, baled and packaged either as 1500 or 1700 series finished product.[44]

The emulsion polymerization process has several advantages. It is normally used under mild reaction conditions that are tolerant to water and requires only the absence of oxygen. The process is relatively robust to impurities and amenable to using a range of functionalized and non-functionalized monomers. Additional benefits include the fact that emulsion polymerization gives high solids contents with low reaction viscosity and is a cost-effective process. The physical state of the emulsion (colloidal) system makes it easy to control the process. Thermal and viscosity problems are much less significant than in bulk polymerization.[45]

A detailed process flow diagram of the ESBR manufacturing process is presented in Figure I-2.

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[41] Conference transcript, pp. 25-26, (Isaacs). "The Synthetic Rubber Manual," IISRP, August, 2012.

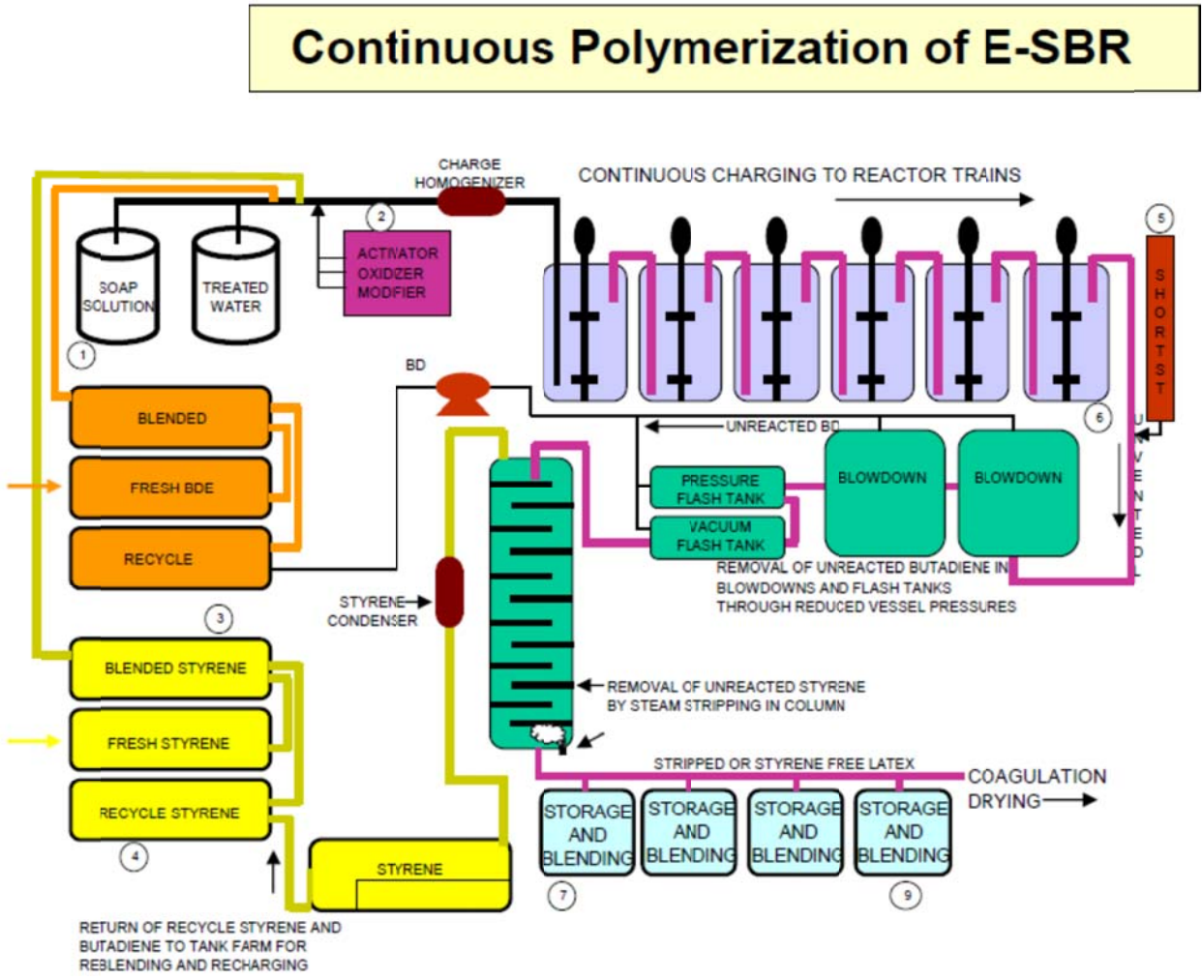
[42] Petition, pp. 8-10. "The Synthetic Rubber Manual ," IISRP, August 2012.

[43] "The Synthetic Rubber Manual," IISRP, August 2012, http://iisrp.com/WebPolymers/AboutRubber/09ESBR16Aug2012.pdf, retrieved May 22, 2017.

[44] Nitrile rubber (NBR)—acrylonitrile butadiene rubber--is sometimes produced on similar equipment in certain plants. Conference transcript, pp. 124-125 (Nelson).

[45] "The Synthetic Rubber Manual," IISRP, August 2012.

**Figure I-2**
**ESBR: Process flow diagram**




Source: The Synthetic Rubber Manual, IISRP, 2012.

## DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations. In the preliminary phase of these investigations, the petitioners proposed that the Commission define one like product as defined in the Petitions.[46] Respondents do not dispute the domestic-like product.[47] The Commission, for the purposes of its preliminary determinations, defined a single like product corresponding to the scope of the investigations.[48] The Commission determined not to include CBMB, SSBR, or natural rubber, which are outside the scope definition, in the domestic like product.[49]

[46] Hearing transcript, pp. 40-41 (McGrath).

[47] Respondents' joint prehearing brief, p. 3.

[48] *Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland, Investigation Nos. 731-TA-1334-1337 (Preliminary)*, USITC Publication 4636, September 2016, p. 10.

[49] *Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland, Investigation Nos. 731-TA-1334-1337 (Preliminary)*, USITC Publication 4636, September 2016, pp. 7-10.

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

## U.S. MARKET CHARACTERISTICS

ESBR is produced as a dry, crumb-like material and is typically sold in pressed bales, with a "normal" level of styrene of 23.5 percent.[1] The majority (approximately 70 percent) of ESBR is used by tire manufactures, primarily to manufacture tires for the replacement market and, to a lesser degree, to manufacture tires for original equipment manufacturers ("OEMs"). ESBR is also used to manufacture conveyor belts, shoe soles, a variety of hoses, and flooring.[2] ESBR is normally categorized by the 1500 and 1700 series of ESBR representing the largest volume synthetic rubbers in use globally.[3] Demand for ESBR is primarily driven by demand from the tire manufacturing industry for use in replacement tires.

Apparent U.S. consumption of ESBR decreased during 2014-2016 from *** pounds in 2014 to *** pounds in 2016. Overall, apparent U.S. consumption in 2016 was *** percent lower than in 2014.

## U.S. PURCHASERS

The Commission received 20 usable questionnaire responses from firms that bought ESBR during 2014-16.[4] Three responding purchasers are distributors, seven are tire manufacturers, eight are other end users, and two are other types of firms (e.g., plant clean up). In general, responding U.S. purchasers were located in the Midwest and Southeast. The responding purchasers represented firms in a variety of industries, including tire manufacturing, flooring, and hose and belt manufacturing. During 2014-16, The largest responding purchasers of ESBR during 2014-16 were ***.

## CHANNELS OF DISTRIBUTION

U.S. producers and most subject importers sold mainly to tire manufacturers followed by other end users, as shown in table II-1. Importers of ESBR from Poland sold most of their ESBR to other end users. A large portion of nonsubject imports were sold to tire manufacturers. Across all sources, small shares of ESBR were sold to distributors.

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[1] Petition, Vol. I, pp. 7 and 18.

[2] Petition, Vol. I, pp. 7 and 18.

[3] Petition, Vol. I, p. 18.

[4] Of the 20 responding purchasers, 19 purchased the domestic ESBR, 10 purchased imports of the subject merchandise from Brazil, 9 purchased imports of the subject merchandise from Korea, 6 purchased imports of the subject merchandise from Mexico, 5 purchased imports of the subject merchandise from Poland, and 11 purchased imports of ESBR from other sources.

**Table II-1**
**ESBR: U.S. producers' and importers' share of U.S. commercial shipments, by sources and channels of distribution, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## GEOGRAPHIC DISTRIBUTION

U.S. producers and most importers reported selling ESBR to all regions in the contiguous United States (table II-2). For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent of sales within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.

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

| Region | U.S. producers | Importers | | | | |
|---|---|---|---|---|---|---|
| | | Brazil | Korea | Mexico | Poland | Subject sources |
| Northeast | 2 | 0 | 3 | 0 | 1 | 4 |
| Midwest | 2 | 1 | 4 | 1 | 1 | 7 |
| Southeast | 2 | 1 | 4 | 1 | 1 | 7 |
| Central Southwest | 2 | 1 | 3 | 1 | 1 | 6 |
| Mountain | 1 | 0 | 1 | 0 | 1 | 2 |
| Pacific Coast | 1 | 1 | 3 | 1 | 1 | 6 |
| Other[1] | 0 | 0 | 0 | 0 | 0 | 0 |
| All regions (except Other) | 1 | 0 | 1 | 0 | 1 | 2 |
| Reporting firms | 2 | 1 | 4 | 1 | 1 | 7 |

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

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

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. supply

#### Domestic production

Based on available information, U.S. producers[5] of ESBR have the ability to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced ESBR to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and the availability of product sold in alternate markets.

[5] Data from U.S. producer *** was included in production and capacity estimates in this section.

Factors mitigating responsiveness of supply include limited availability of inventories and the inability to shift production to or from alternate products.

***Industry capacity***

Domestic capacity utilization decreased from *** percent in 2014 to *** percent in 2016, as capacity increased by *** percent and production declined by *** percent over the same period. Production and capacity utilization were higher in January-March 2016 than in January-March 2017, while capacity remained constant. This *** level of capacity utilization suggests that U.S. producers may have some ability to increase production of ESBR in response to an increase in prices.

***Alternative markets***

U.S. producers' exports, as a share of total shipments, increased between 2014 and 2016. U.S. producers' export shipments rose from *** percent in 2014 to *** percent in 2016. Exports, as a share of total shipments, were higher in interim 2016 than in interim 2017. These levels indicate that U.S. producers may have some ability to shift shipments between the U.S. market and other markets in response to price changes.

***Inventory levels***

U.S. producers' inventories decreased, relative to U.S. shipments, from *** percent in 2014 to *** percent in 2016. Inventory levels were higher in interim 2016 (*** percent) than in interim 2017 (*** percent). These inventory levels suggest that U.S. producers may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

***Production alternatives***

***

***Supply constraints***

*** U.S. producer reported supply constraints since January 2014. ***.

**Subject imports**[6]

Table II-3 provides a summary of supply-related data for subject countries.

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

**Table II-3**
**ESBR: Foreign industry factors that affect ability to increase shipments to the United States**

* * * * * * *

**Subject imports from Brazil**

Based on available information, producers of ESBR from Brazil have the ability to respond to changes in demand with *** changes in the quantity of shipments of ESBR to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, some ability to shift shipments from alternative markets, and the ***, tempered by low inventory levels.

***Industry capacity***

The responding Brazilian producer, Arlanxeo Brazil, reported an increase in capacity utilization from *** percent in 2014 to *** percent in 2016, driven by an increase in production. Capacity utilization was lower in interim 2016 than in interim 2017, with capacity declining and production increasing in interim 2017. This relatively *** level of capacity utilization suggests that the Brazilian producer may have *** ability to increase production of ESBR in response to an increase in prices.

***Alternative markets***

Brazil's shipments to markets other than the United States, as a percentage of total shipments, increased during 2014-16. Shipments to domestic markets declined from *** percent to *** percent, and shipments to export markets other than the United States rose from *** percent to *** percent. Brazilian exports indicate that producers may have *** ability to shift shipments between domestic or other markets and the U.S. market in response to price changes.

***Inventory levels***

The responding Brazilian producer reported a *** in 2016. Inventory levels were higher in interim 2016 (*** percent) than in interim 2017 (*** percent).These inventory levels suggest that the Brazilian producer may have *** to changes in demand with changes in the quantity shipped from inventories.

***Production alternatives***

Arlanxeo Brazil stated that it ***.

**Subject imports from Korea**

Based on available information, producers of ESBR from Korea have the ability to respond to changes in demand with *** changes in the quantity of shipments of ESBR to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and the substantial ability to shift shipments from alternative markets. Factors mitigating responsiveness of supply include limited availability of inventories and the ***.

***Industry capacity***

Responding Korean producers reported a decrease in capacity utilization from *** percent in 2014 to *** percent in 2016, driven by declines in both capacity and production. Capacity utilization was lower during interim 2016 than in interim 2017. This relatively *** production of ESBR in response to an increase in prices.

***Alternative markets***

Korean shipments to markets other than the United States, as a percentage of total shipments, increased during 2014-16. Shipments to domestic markets rose from *** percent to *** percent, and shipments to export markets other than the United States slightly declined from *** percent to *** percent. Korean exports indicate that producers may have substantial ability to shift shipments between domestic or other markets and the U.S. market in response to price changes.

***Inventory levels***

Responding Korean producers reported a decrease in inventories, relative to total shipments, from *** percent in 2014 to *** percent in 2016. Inventory levels were lower in interim 2016 (*** percent) than in interim 2017 (*** percent). These inventory levels suggest that Korean producers may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

***Production alternatives***

*** stated that ***.

**Subject imports from Mexico**

Based on available information, the responding producer of ESBR in Mexico has the ability to respond to changes in demand with *** changes in the quantity of shipments of ESBR to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the *** levels of unused capacity, some ability to shift shipments from alternate markets, and the ***.

***Industry capacity***

The responding Mexican producer, Negromex, reported a decrease in capacity utilization from *** in production. Capacity utilization was lower in interim 2016 than in interim 2017. This level of capacity utilization suggests that the Mexican producer may have *** ability to increase production of ESBR in response to an increase in prices.

***Alternative markets***

Mexican shipments to markets other than the United States, as a percentage of total shipments, slightly increased during 2014-16. Shipments to domestic markets declined from *** percent to *** percent, and shipments to export markets other than the United States rose from *** percent to *** percent. Mexican exports indicate that producers may have *** ability to shift shipments between domestic or other markets and the U.S. market in response to price changes.

***Inventory levels***

Negromex's inventories, relative to total shipments, stayed relatively constant from *** percent in 2014 to *** percent in 2016. Inventory levels were higher in interim 2016 (*** percent) than in interim 2017 (*** percent). These inventory levels suggest that the Mexican producer may have *** ability to respond to changes in demand with changes in the quantity shipped from inventories.

***Production alternatives***

Negromex stated that it ***.

**Subject imports from Poland**

Based on available information, the producer of ESBR in Poland has the ability to respond to changes in demand with *** changes in the quantity of shipments of ESBR to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the substantial ability to shift shipments from alternate markets and the ***, tempered by limited unused capacity and low inventory levels.

***Industry capacity***

The responding Polish producer, Synthos, reported a *** percent in 2016, driven by a ***. Capacity utilization and production were higher in interim 2016 than in interim 2017. This *** level of capacity utilization suggests that the Polish producer may have *** ability to increase production of ESBR in response to an increase in prices.

### *Alternative markets*

Polish shipments to markets other than the United States, as a percentage of total shipments, slightly increased during 2014-16. Shipments to domestic markets declined from *** percent to *** percent, and shipments to export markets other than the United States rose from *** percent to *** percent. Polish exports indicate that the producer may have *** ability to shift shipments between domestic or other markets and the U.S. market in response to price changes.

### *Inventory levels*

Synthos's inventories fell, relative to total shipments, between 2014 and 2016. Inventories declined from *** percent in 2014 to *** percent in 2016. Inventory levels were lower in interim 2016 (*** percent) than in interim 2017 (*** percent). These inventory levels suggest that the Polish producer may have *** ability to respond to changes in demand with changes in the quantity shipped from inventories.

### *Production alternatives*

Synthos stated that it ***.

## Supply Constraints from Subject Countries

*** reported supply constraints for ESBR from subject countries since January 2014.

## Nonsubject imports

Nonsubject imports accounted for 20.0 percent of total U.S. imports in 2016. The largest sources of nonsubject imports during 2014-16 were Germany, Japan, Taiwan, and France. Combined, these countries accounted for 67.8 percent of nonsubject imports in 2016.

## New suppliers

Six of 20 purchasers indicated that new suppliers entered the U.S. market since January 1, 2014, citing Synthos, Versalis, and Alternative Rubber and Plastics, ***.

# U.S. demand

Based on available information, the overall demand for ESBR is likely to experience small-to-moderate changes in response to changes in price. The main contributing factors are the somewhat limited substitute products and the moderate cost share of ESBR in most of its end-use products.

**End uses and cost share**

U.S. demand for ESBR depends largely on the demand for production of tires,[7] of which 80 percent are replacement tires and 20 percent are tires for original equipment manufacturers ("OEMs") to use on new vehicles.[8] The largest end-use market for ESBR is the tire manufacturing industry. According to U.S. producers, over 70 percent of ESBR is used in the production of tires.[9] ESBR is also used to produce conveyor belts, hosing, shoes, flooring, and mechanical goods.

ESBR accounts for a varying share of the cost of end-use products in which it is used. For ESBR used in tire manufacturing, most U.S. producers, importers, and purchasers reported cost shares ranging from *** percent to *** percent. ESBR accounts for *** of mechanical rubber goods, *** of belting and hosing, *** percent of shoe soles, *** percent of flooring, and *** for compounders.[10]

**Business cycles**

One of two responding U.S. producers, five of 14 importers, and 11 of 19 responding purchasers indicated that the market was subject to business cycles or distinct conditions of competition. *** reported that the ESBR market follows the seasonal fluctuations of the tire manufacturing industry, which generally slows down during major holiday periods, and the cyclical business conditions in the automobile industry.

**Demand trends**

*** responding producers reported a decrease in U.S. demand since January 1, 2014, whereas importers' and purchasers' responses were more varied (table II-4). Demand for ESBR is tied directly to the demand for tires, and while the demand for tires has increased since 2013, the demand for ESBR in replacement tires has declined.[11] *** stated that demand for ESBR has declined as SSBR has been substituted into tire compounds for technical reasons. *** reported a shift to high performance tires for OEM tires by end users, and a slow growth in the replacement tire market. *** indicated an increase in demand for ESBR due to higher demand for vehicles and higher automotive production. *** reported that based *** the demand for ESBR has decreased as it has shifted towards SSBR, and due to a softer market for tires. All U.S. producers reported that demand decreased outside the United States, while a plurality of importers reported that demand fluctuated outside the United States. *** forecasts ESBR losing market share to SSBR until 2019 due to "the implementation of the tire labelling

[7] Conference transcript, p. 12 (Okun).
[8] Conference transcript, p.98 (Warlick).
[9] Conference transcript, p. 26 (Isaacs).
[10] *** reported a cost share of *** for mechanical rubber parts.
[11] Hearing transcript, pp. 29-30 (Howard), p. 33 (Szamosszeggi).

legislations in the EU, Japan, South Korea, and elsewhere," but acknowledges that complete substitution of ESBR to SSBR is unlikely.[12]

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

| Item | Increase | No change | Decrease | Fluctuate |
|---|---|---|---|---|
| **Demand in the United States** | | | | |
| U.S. producers | 0 | 0 | 2 | 0 |
| Importers | 3 | 3 | 2 | 6 |
| Purchasers | 5 | 3 | 4 | 4 |
| **Demand outside the United States** | | | | |
| U.S. producers | 0 | 0 | 2 | 0 |
| Importers | 2 | 0 | 3 | 4 |
| Purchasers | 3 | 2 | 5 | 5 |
| **Demand for purchasers' final products** | | | | |
| Purchasers | 2 | 2 | 6 | 7 |

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

**Substitute products**

Responding firms identified limited substitutes for ESBR, including natural rubber and SSBR. U.S. producers reported natural rubber, a natural agricultural product,[13] as a substitute for ESBR. Five of 12 responding importers reported that natural rubber and SSBR can be used as substitutes for ESBR in tires. Fourteen of 18 responding purchasers stated there were no substitutes for ESBR. According to petitioners, ESBR is not fully substitutable for natural rubber or other synthetic rubbers, although manufacturers may be able to alter their production recipes somewhat to change the balance between ESBR and natural or synthetic rubbers, while still meeting their desired mechanical and surface properties and economy of the final product.[14]

Petitioners stated that using natural rubber as a complete substitute for ESBR would require significant formulation and operational changes for a manufacturer. They reported, however, that certain tire tread compounds that utilize 50 percent ESBR and 50 percent natural rubber might be adjusted to 60/40 parameters in either direction without changing the characteristics of the resulting product.[15] According to petitioners, ESBR has better extrusion properties for hoses and belts, good resistance to crack growth, a lower tendency to scorch, and superior tread wear characteristics and wet traction, whereas natural rubber provides grip characteristics, heat resistance, superior building tack, and green strength that help hold the tire together during the production process.[16]

Petitioners stated that SSBR provides greater traction than ESBR and thus enhances a tire manufacturer's ability to achieve higher rates of gas mileage and SSBR is used mainly for

[12] Petitioner's postconference brief, p. 104-105.
[13] Conference transcript, pp. 71-72 (Warlick).
[14] Petitions, Vol. I at 7, 20.
[15] Conference transcript p. 20 (Nelson), 26-28 (Isaacs), 39 (Warlick), 92-93 (Zeringue).
[16] Conference transcript p. 93-95 (Zeringue, Isaacs); Petitions, Vol. I at 7, 20.

high performance ("green") tires.[17] SSBR is more expensive to produce and more difficult to process than ESBR, and has a different chemical composition and molecular structure.[18] Production of SSBR requires different technology and equipment than ESBR.[19] SSBR could be substituted for non-tire end uses of ESBR, but at a price premium.[20]

In order to determine whether 1500 series ESBR, 1700 series ESBR, and other out-of-scope products (i.e., all other grades of ESBR, SSBR, CBMB, and hot SMB) can generally be used in the same applications, U.S. producers, importers, and purchasers were asked whether the products can "always", "frequently", "sometimes", or "never" be used interchangeably. As shown in table II-5, producers stated that ESBR and other out-of-scope products are "sometimes" or "never" interchangeable. The majority of importers stated most product pairs are "never" interchangeable, with the exception of in-scope products and SSBR and CBMB which are "sometimes" interchangeable. Most purchasers reported that out-of-scope ESBR is "never" interchangeable with in-scope product.

**Table II-5**
**ESBR: Interchangeability between ESBR and out-of-scope related products, by product pair**

| Product pair | Number of U.S. producers reporting | | | | Number of U.S. importers reporting | | | | Number of purchasers reporting | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | F | S | N | A | F | S | N | A | F | S | N |
| 1500 vs. 1700 | 0 | 0 | 1 | 1 | 0 | 2 | 5 | 5 | 0 | 1 | 3 | 9 |
| 1500 vs. Other ESBR | 0 | 0 | 1 | 1 | 0 | 1 | 4 | 3 | 0 | 0 | 4 | 9 |
| 1500 vs. SSBR | 0 | 0 | 1 | 1 | 0 | 1 | 5 | 5 | 0 | 0 | 5 | 9 |
| 1500 vs. CBMB | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 3 | 0 | 0 | 5 | 6 |
| 1500 vs. Hot SBR | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 8 |
| 1700 vs. Other ESBR | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 5 | 0 | 0 | 4 | 7 |
| 1700 vs. SSBR | 0 | 0 | 1 | 1 | 0 | 1 | 6 | 4 | 0 | 0 | 5 | 5 |
| 1700 vs. CBMB | 0 | 0 | 1 | 1 | 0 | 0 | 5 | 3 | 0 | 0 | 4 | 4 |
| 1700 vs. Hot SBR | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 6 |
| Other ESBR vs. SSBR | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 6 | 0 | 0 | 4 | 6 |
| Other ESBR vs. CBMB | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 5 | 0 | 0 | 3 | 5 |
| Other ESBR vs. Hot SBR | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 6 | 0 | 0 | 1 | 5 |
| SSBR vs. CBMB | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 7 | 0 | 0 | 4 | 4 |
| SSBR vs. Hot SBR | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 6 |
| CBMB vs. Hot SBR | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 6 |

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

[17] Conference transcript, p. 70 (Warlick).
[18] Conference transcript, p. 26-27 (Isaacs).
[19] Conference transcript, p. 26-27 (Isaacs).
[20] Conference transcript, p. 96 (Zeringue).

## SUBSTITUTABILITY ISSUES

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

### Lead times

ESBR is primarily sold from inventory. U.S. producers reported that *** percent of their U.S. commercial shipments were sold from inventory, with lead times averaging *** days. The remaining *** percent of their U.S. commercial shipments were produced-to-order, with lead times averaging *** days. U.S. importers reported that 89.3 percent of their U.S. commercial shipments came from inventories, with lead times averaging 4 days. The remaining 6.2 percent of their U.S. commercial shipments were produced-to-order with lead times averaging 60 days, and 4.6 percent were from foreign inventory with lead times averaging 41 days.

### Knowledge of country sources

Seventeen purchasers indicated they had marketing/pricing knowledge of domestic ESBR, 12 of Brazilian ESBR, 11 of Korean ESBR, 8 of Mexican ESBR, 6 of Polish ESBR, and 6 of ESBR from nonsubject countries.

As shown in table II-6, most purchasers and their customers “sometimes” or “never” make purchasing decisions based on the producer or country of origin. Of the five purchasers that reported that they “always” make decisions based the manufacturer, two firms cited quality; other reasons cited include supplier capability, service, price, availability, capacities and risk mitigation, and technical approval.

**Table II-6**
**ESBR: Purchasing decisions based on producer and country of origin**

| Purchaser/Customer Decision | Always | Usually | Sometimes | Never |
|---|---|---|---|---|
| Purchaser makes decision based on producer | 5 | 1 | 6 | 8 |
| Purchaser’s customers make decision based on producer | 0 | 1 | 4 | 9 |
| Purchaser makes decision based on country | 4 | 0 | 4 | 12 |
| Purchaser’s customers make decision based on country | 0 | 1 | 3 | 10 |

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

### Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for ESBR were price (18 firms), quality (15 firms), and availability (12 firms) as shown in table II-7. Quality was the most frequently cited first-most important factor (cited by 8 firms); price,

quality, and availability were the most frequently reported second-most important factors (5 firms each); and price was the most frequently reported third-most important factor (9 firms).

**Table II-7**
**ESBR: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor**

| Factor | First | Second | Third | Total |
|---|---|---|---|---|
| Price / Cost | 4 | 5 | 9 | 18 |
| Quality | 8 | 5 | 2 | 15 |
| Availability / Supply | 3 | 5 | 4 | 12 |
| Other[1] | 5 | 3 | 3 | 11 |

[1] Other factors include technical approval, product specification, and relationship with supplier.

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

The majority of purchasers (14 of 20) reported that they “usually” or “sometimes” purchase the lowest-priced product.

When asked if they purchased ESBR from one source although a comparable product was available at a lower price from another source, 16 purchasers reported reasons including customer requests, only purchasing U.S. product, and relationship with suppliers. Seven of 19 purchasers reported that certain types of product were only available from a single source. *** reported that ESBR 1509 is only available from Mexico and Italy, and ESBR 1510 is only available from Argentina. *** stated it can only source ESBR 1500 from Brazil as *** does not offer the grade.

**Importance of specified purchase factors**

Purchasers were asked to rate the importance of 16 factors in their purchasing decisions (table II-8). The factors rated as very important by more than half of responding purchasers were availability (20 purchasers), product consistency and reliability of supply (19 each), quality meets industry standards (17), price (16), end use product specification (12), and delivery time (11).

**Table II-8**
**ESBR: Importance of purchase factors, as reported by U.S. purchasers, by factor**

| Factor | Very important | Somewhat important | Not important |
|---|---|---|---|
| Availability | 20 | 0 | 0 |
| Delivery terms | 8 | 10 | 2 |
| Delivery time | 11 | 8 | 1 |
| Discounts offered | 1 | 12 | 7 |
| End use product specifications | 12 | 5 | 2 |
| Extension of credit | 2 | 11 | 7 |
| Minimum quantity requirements | 3 | 8 | 9 |
| Packaging | 6 | 10 | 4 |
| Price | 16 | 4 | 0 |
| Product consistency | 19 | 1 | 0 |
| Product range | 2 | 14 | 4 |
| Quality meets industry standards | 17 | 2 | 0 |
| Quality exceeds industry standards | 4 | 12 | 4 |
| Reliability of supply | 19 | 1 | 0 |
| Technical support/service | 8 | 11 | 1 |
| U.S. transportation costs | 8 | 11 | 1 |

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

### Supplier certification

Fourteen of 20 responding purchasers require their suppliers to become certified or qualified to sell ESBR to their firm. Most purchasers reported that the time to qualify a new supplier ranged from 60 to 270 days. Three purchasers reported that *** and *** had failed in their attempt to qualify product, or had lost approved status since 2014.

### Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2014 (table II-9). Eleven of 20 responding purchasers reported that they had changed suppliers since January 1, 2014. Reasons reported for changes in sourcing included non-competitive pricing and availability. Specifically, firms dropped or reduced purchases from *** because of ***.

**Table II-9**
**ESBR: Changes in purchase patterns from U.S., subject, and nonsubject countries**

| Source of purchases | Did not purchase | Decreased | Increased | Constant | Fluctuated |
|---|---|---|---|---|---|
| United States | 0 | 5 | 7 | 4 | 5 |
| Brazil | 6 | 2 | 7 | 0 | 0 |
| Korea | 5 | 6 | 1 | 0 | 1 |
| Mexico | 7 | 3 | 1 | 0 | 2 |
| Poland | 7 | 2 | 2 | 0 | 2 |
| All other sources | 4 | 3 | 2 | 2 | 2 |
| Sources unknown | 6 | 2 | 1 | 0 | 1 |

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

**Importance of purchasing domestic product**

Sixteen of 17 purchasers reported that purchasing U.S.-produced ESBR was not an important factor in their purchasing decisions. Two purchasers reported it was required by their customers (for 25 and 99 percent of their purchases), and two other purchasers reported other preferences for domestic product, including previous purchases using specific polymers.

**Comparisons of domestic products, subject imports, and nonsubject imports**

Purchasers were asked a number of questions comparing ESBR produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 16 factors (table II-10) for which they were asked to rate the importance.

Most purchasers reported that U.S. subject and nonsubject product were comparable on almost all factors, including the factors reported as very important in table II-7. Factors where purchasers more often cited U.S. product as superior included delivery time. Most purchasers reported that ESBR from subject countries were comparable on most factors.

**Table II-10**
**ESBR: Purchasers' comparisons between U.S.-produced and imported product**

| Factor | U.S. vs. Brazil | | | U.S. vs. Korea | | | U.S. vs. Mexico | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 2 | 9 | 1 | 2 | 8 | 1 | 4 | 5 | 1 |
| Delivery terms | 2 | 9 | 0 | 4 | 6 | 1 | 3 | 7 | 0 |
| Delivery time | 4 | 8 | 0 | 6 | 3 | 1 | 3 | 6 | 0 |
| Discounts offered | 0 | 10 | 1 | 1 | 8 | 0 | 2 | 7 | 0 |
| End use product specifications | 0 | 12 | 0 | 0 | 10 | 0 | 1 | 7 | 1 |
| Extension of credit | 1 | 10 | 0 | 0 | 9 | 1 | 3 | 6 | 1 |
| Minimum quantity requirements | 1 | 10 | 0 | 1 | 9 | 1 | 1 | 9 | 0 |
| Packaging | 0 | 12 | 0 | 0 | 11 | 0 | 1 | 9 | 0 |
| Price[1] | 1 | 8 | 2 | 2 | 6 | 2 | 1 | 7 | 2 |
| Product consistency | 1 | 11 | 0 | 0 | 11 | 0 | 1 | 8 | 1 |
| Product range | 3 | 8 | 0 | 0 | 10 | 1 | 1 | 8 | 1 |
| Quality meets industry standards | 0 | 12 | 0 | 0 | 11 | 0 | 1 | 9 | 0 |
| Quality exceeds industry standards | 0 | 11 | 0 | 0 | 11 | 0 | 1 | 9 | 0 |
| Reliability of supply | 1 | 10 | 1 | 0 | 10 | 1 | 3 | 6 | 1 |
| Technical support/service | 3 | 8 | 1 | 1 | 9 | 1 | 2 | 8 | 0 |
| U.S. transportation costs[1] | 2 | 9 | 1 | 1 | 8 | 1 | 4 | 5 | 0 |

| Factor | U.S. vs. Poland | | | Brazil vs. Korea | | | Brazil vs. Mexico | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 1 | 4 | 1 | 1 | 5 | 0 | 1 | 4 | 0 |
| Delivery terms | 2 | 3 | 1 | 1 | 5 | 0 | 1 | 3 | 1 |
| Delivery time | 4 | 0 | 1 | 3 | 3 | 0 | 1 | 3 | 1 |
| Discounts offered | 0 | 5 | 0 | 1 | 5 | 0 | 1 | 3 | 1 |
| End use product specifications | 0 | 5 | 0 | 0 | 6 | 0 | 1 | 4 | 0 |
| Extension of credit | 1 | 5 | 0 | 1 | 5 | 0 | 1 | 2 | 2 |
| Minimum quantity requirements | 1 | 5 | 0 | 0 | 6 | 0 | 1 | 4 | 0 |
| Packaging | 0 | 6 | 0 | 0 | 6 | 0 | 1 | 4 | 0 |
| Price[1] | 0 | 2 | 3 | 1 | 5 | 0 | 1 | 3 | 1 |
| Product consistency | 0 | 4 | 2 | 0 | 6 | 0 | 1 | 4 | 0 |
| Product range | 1 | 5 | 0 | 0 | 5 | 1 | 1 | 3 | 1 |
| Quality meets industry standards | 0 | 6 | 0 | 0 | 6 | 0 | 1 | 4 | 0 |
| Quality exceeds industry standards | 0 | 6 | 0 | 0 | 6 | 0 | 1 | 4 | 0 |
| Reliability of supply | 1 | 4 | 1 | 1 | 5 | 0 | 1 | 4 | 0 |
| Technical support/service | 3 | 3 | 0 | 1 | 5 | 0 | 1 | 4 | 0 |
| U.S. transportation costs[1] | 1 | 4 | 0 | 1 | 4 | 1 | 2 | 2 | 1 |

Table continued on next page.

**Table II-10 -- Continued**
**ESBR: Purchasers' comparisons between U.S.-produced and imported product**

| Factor | Brazil vs. Poland | | | Korea vs. Mexico | | | Korea vs. Poland | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 0 | 2 | 1 | 0 | 5 | 0 | 0 | 4 | 1 |
| Delivery terms | 0 | 2 | 1 | 1 | 4 | 0 | 0 | 4 | 1 |
| Delivery time | 1 | 1 | 1 | 0 | 2 | 2 | 0 | 3 | 1 |
| Discounts offered | 1 | 2 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| End use product specifications | 0 | 3 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Extension of credit | 0 | 3 | 0 | 0 | 4 | 1 | 0 | 5 | 0 |
| Minimum quantity requirements | 0 | 3 | 0 | 0 | 5 | 0 | 0 | 5 | 0 |
| Packaging | 0 | 3 | 0 | 0 | 5 | 0 | 2 | 3 | 0 |
| Price[1] | 0 | 2 | 1 | 1 | 2 | 1 | 0 | 3 | 1 |
| Product consistency | 0 | 2 | 1 | 1 | 4 | 0 | 1 | 3 | 1 |
| Product range | 0 | 3 | 0 | 1 | 4 | 0 | 1 | 4 | 0 |
| Quality meets industry standards | 0 | 3 | 0 | 0 | 5 | 0 | 1 | 4 | 0 |
| Quality exceeds industry standards | 0 | 3 | 0 | 0 | 5 | 0 | 1 | 4 | 0 |
| Reliability of supply | 0 | 3 | 0 | 0 | 5 | 0 | 0 | 5 | 0 |
| Technical support/service | 0 | 3 | 0 | 0 | 5 | 0 | 1 | 4 | 0 |
| U.S. transportation costs[1] | 0 | 3 | 0 | 1 | 3 | 0 | 0 | 4 | 0 |

| Factor | Mexico vs. Poland | | | U.S. vs. Nonsubject countries | | | Brazil vs. Nonsubject countries | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 2 | 2 | 0 | 1 | 6 | 1 | 0 | 3 | 0 |
| Delivery terms | 1 | 3 | 0 | 2 | 6 | 0 | 0 | 3 | 0 |
| Delivery time | 3 | 0 | 0 | 4 | 2 | 1 | 1 | 2 | 0 |
| Discounts offered | 0 | 3 | 0 | 0 | 6 | 0 | 0 | 3 | 0 |
| End use product specifications | 1 | 2 | 0 | 0 | 6 | 1 | 0 | 3 | 0 |
| Extension of credit | 0 | 4 | 0 | 0 | 7 | 0 | 0 | 3 | 0 |
| Minimum quantity requirements | 0 | 4 | 0 | 0 | 8 | 0 | 0 | 3 | 0 |
| Packaging | 0 | 4 | 0 | 0 | 7 | 0 | 0 | 3 | 0 |
| Price[1] | 0 | 1 | 2 | 1 | 5 | 2 | 0 | 3 | 0 |
| Product consistency | 2 | 2 | 0 | 0 | 8 | 0 | 0 | 3 | 0 |
| Product range | 1 | 3 | 0 | 0 | 7 | 1 | 0 | 3 | 0 |
| Quality meets industry standards | 0 | 4 | 0 | 0 | 8 | 0 | 0 | 3 | 0 |
| Quality exceeds industry standards | 0 | 4 | 0 | 0 | 8 | 0 | 0 | 3 | 0 |
| Reliability of supply | 1 | 3 | 0 | 1 | 6 | 1 | 0 | 3 | 0 |
| Technical support/service | 1 | 3 | 0 | 2 | 6 | 0 | 0 | 3 | 0 |
| U.S. transportation costs[1] | 0 | 3 | 0 | 3 | 4 | 0 | 0 | 3 | 0 |

Table continued on next page.

**Table II-10 -- Continued**
**ESBR: Purchasers' comparisons between U.S.-produced and imported product**

| Factor | Korea vs. Nonsubject countries | | | Mexico vs. Nonsubject countries | | | Poland vs. Nonsubject countries | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 0 | 5 | 0 | 1 | 3 | 0 | 0 | 3 | 1 |
| Delivery terms | 0 | 5 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Delivery time | 0 | 4 | 0 | 2 | 1 | 0 | 0 | 3 | 0 |
| Discounts offered | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 3 | 0 |
| End use product specifications | 0 | 4 | 0 | 1 | 2 | 0 | 0 | 3 | 0 |
| Extension of credit | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Minimum quantity requirements | 0 | 5 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Packaging | 1 | 4 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Price[1] | 1 | 3 | 0 | 0 | 2 | 1 | 0 | 3 | 0 |
| Product consistency | 1 | 4 | 0 | 1 | 3 | 0 | 0 | 3 | 1 |
| Product range | 1 | 4 | 0 | 0 | 4 | 0 | 0 | 3 | 1 |
| Quality meets industry standards | 1 | 4 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |
| Quality exceeds industry standards | 1 | 4 | 0 | 1 | 3 | 0 | 0 | 4 | 0 |
| Reliability of supply | 1 | 4 | 0 | 1 | 3 | 0 | 0 | 4 | 0 |
| Technical support/service | 1 | 4 | 0 | 1 | 3 | 0 | 0 | 4 | 0 |
| U.S. transportation costs[1] | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 3 | 0 |

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

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

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

### Comparison of U.S.-produced and imported ESBR

In order to determine whether U.S.-produced ESBR can generally be used in the same applications as imports from Brazil, Korea, Mexico, and Poland, U.S. producers, importers, and purchasers were asked whether the products can "always", "frequently", "sometimes", or "never" be used interchangeably. As shown in table II-11, most producers and purchasers stated the ESBR from the U.S. compared to subject and nonsubject countries are "always" or "frequently" interchangeable, while importers generally reported that ESBR from the U.S. compared to other countries is "sometimes" interchangeable. Importer *** reported that oil extended grades of ESBR are sometimes interchangeable based on the oil type and polymer used. *** stated "clear type ESBRs, like Buna SE 1502 and Buna SE 1500, are mostly interchangeable from supplier to supplier" but "BUNA SE 1712 TE and BUNA SE 1721 TE are only sometimes interchangeable due to the type of oil extensor (TRAE) used in Brazil's ESBR oil extended rubber." ***, an importer, reported that 1500 and 1700 series from Poland may be disqualified by purchasers due to restrictions by the EU on the use of certain chemicals and materials in the production of ESBR.

**Table II-11**
**ESBR: Interchangeability between ESBR produced in the United States and in other countries, by country pair**

| Country pair | Number of U.S. producers reporting | | | | Number of U.S. importers reporting | | | | Number of purchasers reporting | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | F | S | N | A | F | S | N | A | F | S | N |
| **U.S. vs. subject countries:** U.S. vs. Brazil | 1 | 1 | 0 | 0 | 2 | 3 | 3 | 0 | 9 | 2 | 1 | 0 |
| U.S. vs. Korea | 1 | 1 | 0 | 0 | 2 | 3 | 4 | 0 | 8 | 4 | 1 | 0 |
| U.S. vs. Mexico | 1 | 1 | 0 | 0 | 3 | 2 | 3 | 0 | 6 | 6 | 0 | 0 |
| U.S. vs. Poland | 1 | 1 | 0 | 0 | 2 | 2 | 4 | 0 | 4 | 4 | 0 | 0 |
| **Subject countries comparisons:** Brazil vs. Korea | 1 | 1 | 0 | 0 | 3 | 1 | 2 | 0 | 7 | 2 | 0 | 0 |
| Brazil vs. Mexico | 1 | 1 | 0 | 0 | 3 | 2 | 2 | 0 | 7 | 2 | 0 | 0 |
| Brazil vs. Poland | 1 | 1 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 2 | 0 | 0 |
| Korea vs. Mexico | 1 | 1 | 0 | 0 | 3 | 2 | 3 | 0 | 4 | 5 | 0 | 0 |
| Korea vs. Poland | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 0 | 2 | 4 | 0 | 0 |
| Mexico vs. Poland | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 0 | 2 | 4 | 1 | 0 |
| **Nonsubject countries comparisons:** U.S. vs. China | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 0 | 1 | 2 | 1 | 0 |
| U.S. vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| U.S. vs. Other | 1 | 1 | 0 | 0 | 2 | 2 | 3 | 0 | 0 | 3 | 2 | 1 |
| Brazil vs. China | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 1 | 1 | 0 |
| Brazil vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 1 | 1 | 0 |
| Brazil vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| Korea vs. China | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Korea vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Korea vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 1 | 1 | 1 |
| Mexico vs. China | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Mexico vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Mexico vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 3 | 1 | 0 |
| Poland vs. China | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Poland vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| Poland vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 2 | 1 | 0 |
| China vs. Germany | 1 | 1 | 0 | 0 | 2 | 1 | 3 | 0 | 1 | 2 | 1 | 0 |
| China vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 0 |
| Germany vs. Other | 1 | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1 | 1 | 0 |

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

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

Most responding purchasers reported that domestic and subject country ESBR always met minimum quality specifications. Fourteen responding purchasers reported that domestically produced product always met minimum quality specifications (table II-12). Eleven responding purchasers reported that ESBR imported from Brazil always met minimum quality

specifications, 12 responding purchasers reported that ESBR imported from Korea always met minimum quality specifications, 7 responding purchasers reported that ESBR imported from Mexico always met minimum quality specifications, and 6 responding purchasers reported that ESBR imported from Poland always met minimum quality specifications.

**Table II-12**
**ESBR: Ability to meet minimum quality specifications, by source[1]**

| Source | Always | Usually | Sometimes | Rarely or never |
|---|---|---|---|---|
| United States | 14 | 6 | 0 | 0 |
| Brazil | 11 | 2 | 0 | 0 |
| Korea | 12 | 2 | 0 | 0 |
| Mexico | 7 | 4 | 0 | 0 |
| Poland | 6 | 2 | 0 | 0 |
| China | 2 | 2 | 0 | 0 |
| Germany | 3 | 0 | 0 | 0 |
| Other | 3 | 3 | 0 | 1 |

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

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

In addition, producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of ESBR from the United States, subject, or nonsubject countries. As seen in table II-13, U.S. producers were split between the significance of non-price differences "always" or "never" being a factor, while most importers reported that non-price factors are "sometimes" a significant difference. The majority of purchasers stated that non-price differences are either "always" or "never" significant factors. Purchaser *** stated that domestic sources are preferred to imports, but due to diversification purchasing from both is necessary. *** reported purchasing of non-domestic sources due to lead times and matching customer pricing periods.

**Table II-13**
**ESBR: Significance of differences other than price between ESBR produced in the United States and in other countries, by country pair**

| Country pair | Number of U.S. producers reporting | | | | Number of U.S. importers reporting | | | | Number of purchasers reporting | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | F | S | N | A | F | S | N | A | F | S | N |
| **U.S. vs. subject countries:** United States vs. Brazil | 1 | 0 | 0 | 1 | 0 | 2 | 3 | 1 | 4 | 2 | 3 | 4 |
| United States vs. Korea | 1 | 0 | 0 | 1 | 0 | 3 | 4 | 1 | 4 | 4 | 2 | 5 |
| United States vs. Mexico | 1 | 0 | 0 | 1 | 0 | 0 | 5 | 1 | 2 | 2 | 3 | 5 |
| United States vs. Poland | 1 | 0 | 0 | 1 | 1 | 0 | 4 | 1 | 2 | 2 | 2 | 3 |
| **Subject countries comparisons:** Brazil vs. Korea | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 4 | 1 | 2 | 4 |
| Brazil vs. Mexico | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 2 | 0 | 2 | 4 |
| Brazil vs. Poland | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | 2 |
| Korea vs. Mexico | 1 | 0 | 0 | 1 | 0 | 0 | 4 | 1 | 1 | 0 | 3 | 4 |
| Korea vs. Poland | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 1 | 4 |
| Mexico vs. Poland | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 2 | 2 |
| **Nonsubject countries comparisons:** U.S. vs. China | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 1 | 0 | 2 |
| U.S. vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 0 | 1 |
| U.S. vs. Other | 1 | 0 | 0 | 1 | 0 | 1 | 4 | 1 | 2 | 4 | 0 | 1 |
| Brazil vs. China | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 |
| Brazil vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 0 |
| Brazil vs. Other | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 1 |
| Korea vs. China | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 2 |
| Korea vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 |
| Korea vs. Other | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 0 | 1 |
| Mexico vs. China | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 2 |
| Mexico vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 |
| Mexico vs. Other | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 2 | 2 | 0 | 1 |
| Poland vs. China | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 2 |
| Poland vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 |
| Poland vs. Other | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 2 | 0 | 0 |
| China vs. Germany | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 |
| China vs. Other | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 |
| Germany vs. Other | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 |

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

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

## ELASTICITY ESTIMATES

This section discusses elasticity estimates. *** agreed with staff's supply and demand elasticity estimates, but disagreed with staff's substitution elasticity estimate.

### U.S. supply elasticity

The domestic supply elasticity[21] for ESBR measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of ESBR. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced ESBR. Analysis of these factors above indicates that the U.S. industry has the ability to somewhat increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 5 is suggested.[22]

### U.S. demand elasticity

The U.S. demand elasticity for ESBR measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of ESBR. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the ESBR in the production of any downstream products. Based on the available information, the aggregate demand for ESBR is likely to be inelastic; a range of -0.25 to -0.75 is suggested.[23]

### Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[24] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g.,

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

[22] *** agree with the estimated range for U.S. supply elasticity, stating, "Domestic producers have sufficient excess capacity to increase supplies in the event of a meaningful price increase." Petitioners' Prehearing Brief, p. 12.

[23] *** agree with the estimated range for U.S. demand elasticity, stating, "Changes in the price of ESBR do not generally result above unity changes in the quantities of tires produced, but may lead to modest substitution with other raw materials at the margin within very limited parameters." Petitioners' Prehearing Brief, p. 12.

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

availability, sales terms/ discounts/ promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced ESBR and imported ESBR is likely to be in the range of 3 to 5.[25]

[25] *** with the estimated range for U.S. demand elasticity, stating, "The Prehearing Report characterizes domestic and subject ESBR as having a moderate to high degree of substitutability. The record also indicates that the domestic industry and the subject imports both ship *** quantities of 1500 and 1700 series ESBR to the Commercial market. Large majorities of purchasers found U.S. and subject imports to be comparable in the vast majority of purchasing factors. A comparison of top customers reported by importers and domestic producers finds a significant overlap in customers. Similarly, the Prehearing Staff Report shows many shifts by purchasers between domestic ESBR and the subject imports. For these reasons, petitioner believes that an elasticity of substitution range of 4 to 8 is warranted." Petitioners' Prehearing Brief, pp. 12-13.

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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of three firms that accounted for all known U.S. production of ESBR during 2016.

## U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to three firms based on information contained in the petitions and other available industry sources. All three firms provided usable data on their productive operations.[1] Table III-1 lists U.S. producers of ESBR, their production locations, positions on the petitions, and shares of total production in 2016.[2]

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

| Firm | Position on petition | Production location(s) | Share of production (percent) |
|---|---|---|---|
| Goodyear | *** | Houston, TX | *** |
| Lion | Support | Port Neches, TX | *** |
| East West | Support[1] | Baton Rouge, LA | *** |
| Total | | | *** |

[1]. ***. Letter from ***, respondents' joint post hearing brief, exh.2.

Source: Compiled from data submitted in response to Commission questionnaires and respondents' joint posthearing brief, exh. 2.

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

**Table III-2**
**ESBR: U.S. producers' ownership, related and/or affiliated firms, since January 2014**

* * * * * * *

[1] As noted in Part I, data for East West is based on the firm's response to the U.S. producers questionnaire in the preliminary-phase of these investigations (2014-15) and limited trade and financial data (2016) provided by petitioners' counsel. Email from ***, June 9, 2017.

[2] ***. Letter from ***, respondents' joint post hearing brief, exh.2.

No U.S. producers are related to foreign producers of the subject merchandise or related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, one U.S. producer (***) directly imported the subject merchandise from *** and one U.S. producer (***) purchased the subject (***) merchandise from U.S. importers in ***.

**Changes in operations**

As shown in figure I-1, since January 1, 2014, the U.S. industry has experienced several changes with the closure of a facility in Baton Rouge, Louisiana in December 2013 by Lion Copolymer Holdings and restarting of the facility in the first quarter of 2014 by East West.[3] [4] In December 2014, Lion completed its acquisition of a facility in Port Neches, Texas from Ashland Inc.[5] [6] On April 17, 2017, East West filed for chapter 11 bankruptcy, having closed its facility on March 31, 2017. On May 26, 2017, Lion purchased the Baton Rouge, Louisiana facility and is currently assessing the condition of the assets.[7]

[3] "SR plant thrives, two years after rebirth," Rubber News, March 1, 2016, found at http://www.rubbernews.com/article/20160301/NEWS/302229996?template=printart.

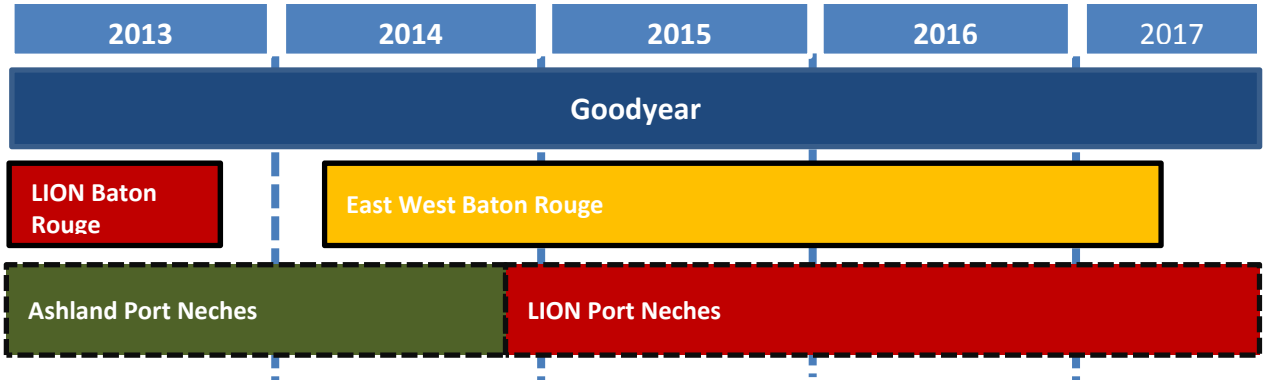
[4] In addition, after it acquired the Baton Rouge facility, East West negotiated with the union to reduce the cost structure by cutting the workforce in approximately half and changing the work rules. Conference transcript, p.44 (Isaacs).

[5] "Lion Copolymer acquires Ashland's elastomers unit in Texas, US," Chemicals Technology, December 3, 2014, found at http://www.chemicals-technology.com/news/newslion-copolymer-acquires-ashlands-elastomers-unit-in-texas-us-4458583.

[6] Lion stated that it acquired this plant from Ashland to diversify its portfolio to include hot polymerized ESBR, a specialized product unrelated to the tire market. In addition, the firm states that the facility has a raw material logistics advantage with its deep sea dock and substantial storage capacity for things such as butadiene. Conference transcript, pp. 50-51 (Zeringue) and hearing transcript, p. 47 (Zeringue).

[7] Hearing transcript, p 64 (Zeringue), "Lion Elastomers buys assets from East West Copolymer", *Rubber News*, June 5, 2017, found at http://www.rubbernews.com/article/20170605/NEWS/170609978, and "Lion Elastomers completed the purchase of assets from East West Copolymer," *Lion press release*, June 2, 2017, found at http://lioncopolymer.com/main/news_item?id=68769.

**Figure I-1**
**ESBR: U.S. production facilities 2013-2017**




Source: Various news articles.

All three domestic producers reported changes in their operations related to the production of ESBR since January 1, 2014 (table III-3).

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

* * * * * * *

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

Table III-4 and figure III-2 present U.S. producers' production, capacity, and capacity utilization.[8] U.S. capacity increased *** percent between 2014 and 2015, during which East West restarted the facility in Baton Rouge, Louisiana, and remained at that level in 2016.[9] Production declined *** percent in 2015 and increased *** percent in 2016, ending *** percent lower than in 2014. *** lower production during 2014-15 was due to Lion, which had *** percent lower production in 2015 compared with 2014, when the Port Neches facility, owned at the time by Ashland, increased production in 2014 to supply some of the customers affected by the Baton Rouge, Louisiana facility shutdown in that year.[10]

[8] One firm, ***.

[9] No firms reported changes in capacity in 2016. East West's capacity, which the firm in the preliminary phase investigations reported as unchanged between January-June 2015 and January-June 2016, was estimated to remain unchanged after 2015.

[10] Conference transcript, pp. 45-46 (Nelson).

**Table III-4**
**ESBR: U.S. producers' production, capacity, and capacity utilization, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

**Figure III-2**
**ESBR: U.S. producers' production, capacity, and capacity utilization, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## Alternative products

As shown in table III-5, ESBR represents the majority of the product produced on the equipment used in the production of ESBR.[11] Production of ESBR accounted for between *** percent of total production during the period for which data were collected, CBMB accounted for the second largest share, between *** percent over the same period, and all other products accounted for between *** percent. *** reported producing CBMB, *** reported production of hot polymerized ESBR and *** reported production of other products.[12] *** reported being able to switch production between ESBR and ***. *** stated that ***.

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

* * * * * * *

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. Total shipments, by quantity, declined *** percent between 2014 and 2015 and increased *** percent in 2016, ending *** percent lower than in 2014. Commercial shipments, which accounted for the majority of total shipments during the period examined, declined (in

[11] Estimates for East West's production of non-ESBR products were not provided. In the preliminary phase investigations, East West reported production of CBMB and eNBR, which are reflected in the data for 2014 and 2015.

[12] These other products included ***.

terms of quantity) *** percent between 2014 and 2015 and increased *** percent in 2016, ending *** percent lower than in 2014.[13]

*** had internal consumption and transfers to related firms during the period examined, accounting for approximately *** of its total shipments, by quantity. *** exported during the period examined, although the share of exports to total shipments differed. Exports, by quantity, accounted for between *** percent of total shipments for ***, *** percent for ***, and *** percent for ***. The share of total shipments accounted for by exports declined for *** between 2014 and 2016, but were higher for ***.

**Table III-6**
**ESBR: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

### Monthly U.S. shipments

Table III-7 presents U.S. producers' monthly U.S. shipments from January 2014 to March 2017.[14]

**Table III-7**
**ESBR: U.S. producers' U.S. shipments, January 2014 through March 2017**

* * * * * * *

## U.S. PRODUCERS' INVENTORIES

Table III-8 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments. U.S. producers' inventories decreased *** percent between 2014 and 2015, and *** percent in 2016, ending *** percent lower than in 2014.[15] The majority of this change was accounted for by ***, which along with ***, followed this trend. *** followed an opposite trend increasing in 2015 and 2016.

The ratio of U.S. producers' inventories to U.S. production, to U.S. shipments, and to total shipments followed a similar trend as U.S. producers' inventories, declining over the period examined.

---

[13] Total shipments, by quantity, were *** percent lower in interim 2017 than in interim 2016, while commercial U.S. shipments were *** percent lower. The vast majority of the decline was due to *** which ***.

[14] Monthly U.S. shipment data for ***.

[15] U.S. producers' inventories were *** percent lower in interim 2016 than in interim 2015, with *** reporting lower inventories.

**Table III-8**
**ESBR: U.S. producers' inventories, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports of ESBR from subject sources are presented in table III-9. *** stated that it imported ***. *** purchased a minimal (*** quantity of ESBR from *** in 2016.

**Table III-9**
**ESBR: U.S. producers' U.S. production and subject imports, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

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

Table III-10 shows U.S. producers' employment-related data.[16] The number of production and related workers ("PRWs") declined by *** PRWs (*** percent) between 2014 and 2016, and were *** PRWs (*** percent) lower in interim 2017 than in interim 2016. The majority of the decline between 2014 and 2016 was due to ***. *** accounted for the majority of the lower number of PRWs in interim 2017, with the ***.

**Table III-10**
**ESBR: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## CAPTIVE CONSUMPTION[17]

Section 771(7)(C)(iv) of the Act states that–[18]

> *If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that–*

[16] ***.

[17] Appendix C, table C-2 presents data on the merchant market for ESBR.

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

*(I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,*

*(II) the domestic like product is the predominant material input in the production of that downstream article, and*

*then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.*

**Transfers and sales**

As reported in table III-6, internal consumption, by quantity, accounted for *** percent U.S. producers' U.S. shipments of ESBR during January 2014-March 2017. Transfers to related firms accounted for an additional *** percent over the same period.

**First statutory criterion in captive consumption**

The first requirement for application of the captive consumption provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. U.S. producers reported internal consumption of ESBR for the production of tires. No U.S. producer reported diverting ESBR intended for internal consumption to the merchant market.[19]

**Second statutory criterion in captive consumption**

The second criterion of the captive consumption provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captivity produced. With respect to the downstream articles resulting from captive production, ESBR reportedly comprises *** percent of the finished cost of tires.[20]

[19] Email from ***, August 22, 2016.
[20] Ibid.

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

## U.S. IMPORTERS

The Commission issued importer questionnaires to 52 firms believed to be importers of ESBR, as well as to all U.S. producers of ESBR.[1] Usable questionnaire responses were received from 15 companies.[2] [3] Table IV-1 lists all responding U.S. importers of ESBR from Brazil, Korea, Mexico, Poland, and other sources, their locations, and their shares of U.S. imports, in 2016.

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

| Firm | Headquarters | Share of imports by source (percent) | | | | |
|---|---|---|---|---|---|---|
| | | Brazil | Korea | Mexico | Poland | Subject sources |
| Alternative Rubber | Amherst, MY | *** | *** | *** | *** | *** |
| Americas International | Akron, OH | *** | *** | *** | *** | *** |
| Arlanxeo | Pittsburgh, PA | *** | *** | *** | *** | *** |
| Channel Prime (Ravago) | Des Moines, IA | *** | *** | *** | *** | *** |
| Continental | Fort Mill, SC | *** | *** | *** | *** | *** |
| Cooper | Findlay, OH | *** | *** | *** | *** | *** |
| Goodyear | Akron, OH | *** | *** | *** | *** | *** |
| Harwick | Akron, OH | *** | *** | *** | *** | *** |
| INSA | Houston, TX | *** | *** | *** | *** | *** |
| Intertex | Carrollton, GA | *** | *** | *** | *** | *** |
| Kimball Rentals | Salt Lake City, UT | *** | *** | *** | *** | *** |
| LG Chem | Atlanta, GA | *** | *** | *** | *** | *** |
| Michelin | Greenville, SC | *** | *** | *** | *** | *** |
| Mitas | Charles City, IA | *** | *** | *** | *** | *** |
| POSCO Daewoo | Teaneck, NJ | *** | *** | *** | *** | *** |
| Yokohama | West Point, MS | *** | *** | *** | *** | *** |
| Firms that provided a questionnaire | | *** | *** | *** | *** | *** |
| All other firms | | *** | *** | *** | *** | *** |
| Total | | *** | *** | *** | *** | *** |

Table continued on next page.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by ***, may have accounted for more than three percent of total imports under HTS subheading 4002.19.0015 or 4002.19.0019 in any year during 2014-2016.

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

[3] Other than imports under HTS number 4002.19.0015, two firms (***) reported importing under HTS number 4002.19.0019, one firm (***) under 4002.19.0016 ***, and one firm (***) under 4002.60.0000 ***. *** and email from ***, May 15, 2017.

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

| Firm | Share of imports by source (percent) | | | | |
|---|---|---|---|---|---|
| | China | Germany | All other sources | Nonsubject sources | All import sources |
| Alternative Rubber | *** | *** | *** | *** | *** |
| Americas International | *** | *** | *** | *** | *** |
| Arlanxeo | *** | *** | *** | *** | *** |
| Channel Prime (Ravago) | *** | *** | *** | *** | *** |
| Continental | *** | *** | *** | *** | *** |
| Cooper | *** | *** | *** | *** | *** |
| Goodyear | *** | *** | *** | *** | *** |
| Harwick | *** | *** | *** | *** | *** |
| INSA | *** | *** | *** | *** | *** |
| Intertex | *** | *** | *** | *** | *** |
| Kimball Rentals | *** | *** | *** | *** | *** |
| LG Chem | *** | *** | *** | *** | *** |
| Michelin | *** | *** | *** | *** | *** |
| Mitas | *** | *** | *** | *** | *** |
| POSCO Daewoo | *** | *** | *** | *** | *** |
| Yokohama | *** | *** | *** | *** | *** |
| Firms that provided a questionnaire | *** | *** | *** | *** | *** |
| All other firms | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** |

Source: Compiled from data submitted in response to Commission questionnaires and proprietary Customs records using HTS statistical reporting numbers 4002.19.0015 (all sources) and 4002.19.0019 (Korea only) for firms that did not provide a questionnaire response, accessed June 5, 2017.

## U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of ESBR from Brazil, Korea, Mexico, Poland, and all other sources. Subject imports, by quantity, decreased 19.7 percent between 2014 and 2015 and 0.6 percent in 2016, ending 20.2 percent lower than in 2014.[4] [5] U.S. imports from each subject country declined between 2014 and 2015, but increased in 2016 for all subject countries except Korea. A majority of the decline in U.S. imports between 2014 and 2016 was due to imports from Korea, which decreased *** percent between 2014 and 2015, and then declined *** percent in 2016, ending *** percent lower than in 2014. ***, stated that ***.[6]

[4] In the preliminary phase of these investigations, it was noted that between 2013 and 2014 subject imports increased *** percent. *Investigations Nos. 731-TA-1334-1337 (Preliminary): Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland—Staff Report*, INV-00-079, August 29, 2016, p. IV-2.

[5] Imports from subject sources were *** percent lower in interim 2017 than in interim 2016.

[6] Email from ***, May 17, 2017.

The quantity of U.S. imports from Brazil, the only subject source to end higher in 2016 than in 2014, decreased *** percent between 2014 and 2015, and then increased *** percent in 2016, ending *** percent higher than in 2014. Arlanxeo USA, *** U.S. importer of ESBR from Brazil, stated that the increase in U.S. imports from Brazil were principally due to the firm's swap agreement with Goodyear (and whether it was in place or not), and ***.[7] The firm stated that prior to 2014, ***.[8] ***.[9]

U.S. imports from Mexico decreased *** percent between 2014 and 2015, and then increased *** percent in 2016, ending *** percent lower than in 2014. U.S. imports from Poland decreased *** percent between 2014 and 2015, and then increased *** percent in 2016, ending *** percent lower than in 2014.[10] ***.[11] *** stated that its imports from Poland declined over the period examined as ***.[12]

U.S. imports of ESBR from nonsubject sources increased *** percent between 2014 and 2015, and then decreased *** percent in 2016, ending *** percent lower than in 2014.[13]

**Table IV-2**
**ESBR: U.S. imports, by source, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

**Figure IV-1**
**ESBR: U.S. imports, by source, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## CRITICAL CIRCUMSTANCES

On February 24, 2017, Commerce issued its preliminary determination, and on July 19, 2017 Commerce reaffirmed in its final determination that "critical circumstances" exist with regard to imports from Korea of ESBR from Daewoo International Corporation ("Daewoo") and

[7] Hearing transcript, pp. 105-106 (Sawaya).
[8] Arlanxeo's postconference brief, p. 3. Additional information regarding ***.
[9] *** responses to supplemental questions on U.S. importers' questionnaire, May 19, 2017.
[10] U.S. imports from Brazil, Korea, and Mexico were *** percent lower in interim 2017 than in interim 2016, respectively, while U.S. imports from Poland were *** percent higher.
[11] Email from ***, August 10, 2016.
[12] Email from ***, May 16 2017.
[13] Imports from nonsubject sources were *** percent lower in interim 2017 than in interim 2016.

Kumho.[14] In this investigation, if "both Commerce and the Commission make affirmative final critical circumstances determinations, certain subject imports may be subject to antidumping duties retroactive by 90 days from February 24, 2017, the effective date of Commerce's preliminary affirmative LTFV determination. Table IV-3 and figure IV-2 present this data.

**Table IV-3**
**ESBR: U.S. importers' U.S. imports from Korea subject to Commerce's preliminary AD critical circumstance findings, February 2016 through January 2017**

* * * * * * *

**Figure IV-2**
**ESBR: U.S. importers' U.S. imports from Korea subject to Commerce's preliminary AD critical circumstance findings, February 2016 through January 2017**

* * * * * * *

## NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[15] 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

[14] *Emulsion Styrene-Butadiene Rubber From the Republic of Korea: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Affirmative Determination of Critical Circumstances, in Part, Postponement of Final Determination, and Extension of Provisional Measures*, 82 FR 11536, February 24, 2017, and *Emulsion Styrene-Butadiene Rubber from the Republic of Korea: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part*, 82 FR 33045, July 19, 2017, referenced in app. A. When petitioners file timely allegations of critical circumstances, Commerce examines whether there is a reasonable basis to believe or suspect that (1) either there is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise, or the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the subject merchandise at LTFV and that there was likely to be material injury by reason of such sales; and (2) there have been massive imports of the subject merchandise over a relatively short period.

[15] 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)).

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.[16] As shown in table IV-4, imports from all subject countries except Poland accounted for over 15 percent of total imports of ESBR by quantity, while imports from Poland accounted for *** percent of total imports of ESBR by quantity during July 2015-June 2016.[17]

**Table IV-4**
**ESBR: U.S. imports, by source, July 2015 through June 2016**

* * * * * * *

## 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. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

### Fungibility

Figure IV-3 presents data on U.S. producers' and U.S. importers' U.S. shipments by series in 2016. For all but Korea and Germany, the majority of U.S. importer's U.S. shipments consisted of 1500 series ESBR, with 1700 series ESBR accounting for the remainder.[18]

**Figure IV-3**
**ESBR: U.S. producers' and U.S. importers' U.S. shipments by series, 2016**

* * * * * * *

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

[17] Poland accounted for *** percent of total imports of ESBR by quantity during July 2015-June 2016, using data submitted in response to Commission questionnaires and proprietary Customs records using HTS statistical reporting numbers 4002.19.0015 and 4002.19.0019 (all sources) for firms that did not provide a questionnaire response.

[18] Data on U.S. importers' U.S. shipments by series are presented in appendix E.

## Presence in the market

Table IV-5 and figures IV-4 and IV-5 present information on the monthly presence of U.S. imports in the United States during January 2014 through March 2017. U.S. imports from Brazil, Korea, and Mexico were present in the U.S. market in every month during this period. There were no U.S. imports from Poland in January 2014 or in December 2016, but were present in every other month.

**Table IV-5**
**ESBR: U.S. imports, by source and month of entry, January 2014 through March 2017**

* * * * * * *

**Figure IV-4**
**ESBR: Monthly U.S. imports from subject sources, January 2014 through March 2017**

* * * * * * *

**Figure IV-5**
**ESBR: Monthly U.S. imports from all sources, January 2014 through March 2017**

* * * * * * *

## Geographical markets

Table IV-6 presents U.S. imports and border of entry in 2016. All, or virtually all, U.S. imports of ESBR from Brazil and Mexico entered through customs districts in the South, while U.S. imports from Korea entered in all regions (although only a small portion entered through customs districts in the North), as did U.S. imports from Poland (although the majority was through customs districts in the South). U.S. imports from nonsubject sources (primarily Germany) entered in all of the regions, with the majority entering through customs districts in the East.

**Table IV-6**
**ESBR: U.S. imports, by source and border of entry, 2016**

| Item | East | North | South | West | Total |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| U.S. imports from.-- | | | | | |
| Brazil | 459 | --- | 53,863 | --- | 54,321 |
| Korea | 10,786 | 3,732 | 20,106 | 9,577 | 44,202 |
| Mexico | --- | --- | 40,665 | --- | 40,665 |
| Poland | 471 | 2,249 | 2,723 | 150 | 5,594 |
| Subject sources | 11,716 | 5,981 | 117,358 | 9,728 | 144,782 |
| China | 2,064 | 5,353 | 2,720 | 1,963 | 12,100 |
| Germany | 14,564 | 23 | 7,376 | --- | 21,963 |
| All other sources | 21,661 | 3,646 | 1,425 | 2,931 | 29,663 |
| Nonsubject sources | 38,289 | 9,021 | 11,521 | 4,894 | 63,726 |
| All import sources | 50,005 | 15,002 | 128,879 | 14,622 | 208,508 |
| | Share of total by source (percent across) | | | | |
| U.S. imports from.-- | | | | | |
| Brazil | 0.8 | --- | 99.2 | --- | 100.0 |
| Korea | 24.4 | 8.4 | 45.5 | 21.7 | 100.0 |
| Mexico | --- | --- | 100.0 | --- | 100.0 |
| Poland | 8.4 | 40.2 | 48.7 | 2.7 | 100.0 |
| Subject sources | 8.1 | 4.1 | 81.1 | 6.7 | 100.0 |
| China | 17.1 | 44.2 | 22.5 | 16.2 | 100.0 |
| Germany | 66.3 | 0.1 | 33.6 | --- | 100.0 |
| All other sources | 73.0 | 12.3 | 4.8 | 9.9 | 100.0 |
| Nonsubject sources | 60.1 | 14.2 | 18.1 | 7.7 | 100.0 |
| All import sources | 24.0 | 7.2 | 61.8 | 7.0 | 100.0 |
| | Share of total by border (percent down) | | | | |
| U.S. imports from.-- | | | | | |
| Brazil | 0.9 | --- | 41.8 | --- | 26.1 |
| Korea | 21.6 | 24.9 | 15.6 | 65.5 | 21.2 |
| Mexico | --- | --- | 31.6 | --- | 19.5 |
| Poland | 0.9 | 15.0 | 2.1 | 1.0 | 2.7 |
| Subject sources | 23.4 | 39.9 | 91.1 | 66.5 | 69.4 |
| China | 4.1 | 35.7 | 2.1 | 13.4 | 5.8 |
| Germany | 29.1 | 0.2 | 5.7 | --- | 10.5 |
| All other sources | 43.3 | 24.3 | 1.1 | 20.0 | 14.2 |
| Nonsubject sources | 76.6 | 60.1 | 8.9 | 33.5 | 30.6 |
| All import sources | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Official U.S. imports statistics for HTS statistical reporting numbers 4002.19.0015 and 4002.19.0019, accessed May 11, 2017.

## APPARENT U.S. CONSUMPTION

Table IV-7 and figure IV-5 present data on apparent U.S. consumption and U.S. market shares for ESBR. These data show that apparent U.S. consumption, by quantity declined *** percent from 2014 to 2016, while the value of apparent U.S. consumption declined by *** percent. U.S. consumption, by quantity was *** percent lower in interim 2017 compared with interim 2016, while the value of apparent U.S. consumption was *** percent higher.

**Table IV-7**
**ESBR: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

**Figure IV-5**
**ESBR: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## U.S. MARKET SHARES

U.S. market share data are presented in table IV-8. These data show that U.S. producers' market share, by quantity, increased *** percentage points between 2014 and 2016, while U.S. imports from subject sources decreased *** percentage points and U.S. imports from nonsubject sources increased *** percentage points during the same period.[19] Measured by value, U.S. producers' market share, by quantity, declined *** percentage points between 2014 and 2016, and U.S. imports from subject sources decreased *** percentage points, while U.S. imports from nonsubject sources increased *** percentage points during the same period.

**Table IV-8**
**ESBR: U.S. consumption and market shares, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

[19] During 2014, the facility at Baton Rouge, Louisiana, which reopened in March, did not participate in the contract market and only sold on the spot market (which as noted in Part V is a smaller share of U.S. commercial shipments than contract sales). Petitioners note that the ESBR previously supplied by this facility was filled by Port Neches, Texas facility and by imports. Hearing transcript, pp. 55-56 (Rikhoff).

# PART V: PRICING DATA

## FACTORS AFFECTING PRICES

### Raw material costs

The primary raw material inputs to ESBR are styrene and butadiene. Raw material costs represented *** percent and *** percent of the costs of goods sold for ESBR in 2014 and 2016, respectively, and increased to *** percent in January to March 2017 compared to *** percent in January to March 2016. As seen in figure V-1, the cost of styrene declined *** percent and the cost of butadiene declined *** percent between January 2014 and December 2016. From December 2016 to March 2017, the cost of styrene increased *** percent and the cost of butadiene increased *** percent, before both costs began to decline in April 2017.

**Figure V-1**
**Material costs: U.S. contract prices of butadiene and styrene by month, January 2014-April 2017**

* * * * * * *

*** responding U.S. producers reported that raw material prices fluctuated since January 2014, with *** stating that butadiene prices mostly declined from January 2014 to the first quarter of 2016 but started to increase during the second quarter of 2016. *** also reported that prices "surged" at the end of 2016 and peaked in the first quarter of 2017 before a "rapid decline".[1] Ten of 15 responding importers reported fluctuating raw material prices since 2014, with *** reporting a similar decline and subsequent rise in the prices of butadiene. ***, an importer, stated that butadiene is subject to high price volatility, and is impacted by U.S. supplier outages and the supply and demand of other regions of the world. *** also reported that the price of styrene is affected by the cost of benzene and ethylene, and is subject to seasonal cycles that "usually peak in spring at the time of plant maintenance."

### U.S. inland transportation costs

*** responding U.S. producer and *** importers reported that they typically arrange transportation to their customers. U.S. producers reported that their U.S. inland transportation costs were *** while most importers reported costs ranging from 2 to 10 percent.[2]

[1] *** reported a $0.20/lb price increase, effective as of April 1, 2017, to recover raw materials cost increases.

[2] *** producer reported 10 percent and *** producer reported zero percent.

## PRICING PRACTICES

### Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists. As presented in table V-1, U.S. producers and importers primarily use transaction-by-transaction negotiations and contracts.

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

| Method | U.S. producers | Importers |
|---|---|---|
| **Transaction-by-transaction** | *** | 9 |
| **Contract** | *** | 5 |
| **Set price list** | *** | 1 |
| **Other** | *** | 3 |
| **Responding firms** | *** | 9 |

[1] The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

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

U.S. producers and importers reported selling the vast majority of their ESBR under annual contracts in 2016 (table V-2). U.S. producers and importers reported *** sales using short-term contracts.

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

* * * * * * *

The two responding producers reported that annual contracts do not include price renegotiation and meet-or-release provisions. *** reported offering fixed-quantity contracts. Four responding importers reported offering annual contracts that do not include price renegotiation. Two importers reported using fixed-quantity contracts and two importers use fixed-price and quantity annual contracts. *** reported offering meet-or-release provisions on annual contracts.

Two purchasers reported that they purchase product daily, two purchase weekly, 13 purchase monthly, and two purchase quarterly. Nineteen of 20 responding purchasers reported that their purchasing frequency had not changed since January 2014. Most (15 of 20) purchasers contact two to five suppliers before making a purchase.

## Pricing Structure

ESBR contract prices are determined by agreed upon formulas generally made up of two components: a weighted average of the market price of raw material and conversion costs (also known as service fees). Tire companies negotiate with ESBR suppliers in the last quarter of each year for sales in the following calendar year.[3] Both responding U.S. producers reported using pricing formulas, while eight out of 11 U.S. importers stated they do not use pricing formulas. *** reported that different formulas are used for *** of ESBR. Differences in formulas used by U.S. producers and importers can include ***, the use of regional benchmarks for raw material prices (e.g., Asia vs. Europe vs. North America),[4] longer or shorter lag periods for raw material prices, and company-specific conversion costs.

U.S. producers, importers, and purchasers all report that service fees are negotiated during contract discussions.[5] Petitioners report that service fees include conversion costs, additional materials, fixed overhead, and profits.[6] Petitioners state service fees have declined over the period of investigation "despite increasing costs for materials and processing", and report the following declines in *** conversion fees for grade 1502 ESBR[7]:

- ***
- ***
- ***
- ***
- ***

## Sales terms and discounts

U.S. producers typically quote prices on an f.o.b. basis, while importers quote prices on both an f.o.b. and a delivered basis. U.S. producers and importers *** offer discounts. *** producers reported sales terms of ***. Five of 10 importers reported sales terms of net 30 days, while the five reported sales terms of net 60 days. *** also reported sales terms of net 90 days.

## Price leadership

Purchasers reported that Lion, East West[8], and Intertex were price leaders.

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[3] Hearing transcript, p. 122 (Prusa).
[4] Hearing transcript, pp. 123-124(Prusa).
[5] Hearing transcript, pp.96-97 (Cooper) and p. 181 (Singler); Petitioners posthearing brief, p. 2.
[6] Petitioners posthearing brief, p. 3.
[7] Petitioners posthearing brief, p. 3.
[8] East West filed for bankruptcy in April 2017, https://www.pacermonitor.com/public/case/21095939/East_West_Copolymer_LLC (accessed April 2017).

## PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following ESBR products shipped to unrelated U.S. customers during January 2014 to March 2017.

**Product 1.**-- **IISRP 1502 grade of ESBR in all forms, *sold under annual contracts***

**Product 2.**-- **IISRP 1502 grade of ESBR in all forms, *sold as spot sales***

**Product 3.**-- **IISRP 1507 grade of ESBR in all forms**

**Product 4.**-- **IISRP 1500 grade of ESBR in all forms**

**Product 5.**-- **IISRP 1712 grade of ESBR in all forms**

**Product 6.**-- **IISRP 1783 grade of ESBR in all forms**

Two U.S. producers and nine importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[9] [10] [11] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' shipments of ESBR, 99.8 percent of U.S. shipments of subject imports from Brazil, 90.2 percent of U.S. shipments of subject imports from Korea, 60.1 percent of U.S. shipments of subject imports from Mexico, and 92.4 percent of U.S. shipments of subject imports from Poland in 2016.

Price data for products 1-6 are presented in tables V-3 to V-8 and figures V-2 to V-7. Nonsubject country prices are presented in Appendix D.

[9] Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[10] No importers reported pricing data for products 3, 5, and 6 with respect to imports from Brazil and product 1 and 5 with respect to imports from Poland.

[11] Arlanxeo and Goodyear have a swap agreement for 1502 ESBR, in which Arlanxeo USA obtains product from Goodyear in the United States and Arlanxeo Brazil provides product to Goodyear in Brazil for an agreed upon price. However, Goodyear and Arlanxeo are not related companies, and Arlanxeo USA does not sell any additional imported product to the U.S. market through these swaps. Based on these terms, Goodyear's and Arlanxeo's pricing data are not changed based on the swap agreement. Hearing transcript, p. 105 (Sawaya), p. 143 (Weigel), p. 181 (Burke and Weigel).

**Table V-3**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 1[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Table V-4**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 2[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Table V-5**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 3[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Table V-6**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 4[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Table V-7**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 5[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Table V-8**
**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 6[1] and margins of underselling/(overselling), by quarters, January 2014-March 2017**

* * * * * * *

**Figure V-2**
**ESBR: Weighted-average prices and quantities of domestic and imported product 1,[1] by quarters, January 2014 through March 2017**

* * * * * * *

**Figure V-3**
**ESBR: Weighted-average prices and quantities of domestic and imported product 2,[1] by quarters, January 2014 through March 2017**

* * * * * * *

**Figure V-4**
**ESBR: Weighted-average prices and quantities of domestic and imported product 3,[1] by quarters, January 2014 through March 2017**

* * * * * * *

**Figure V-5**
**ESBR: Weighted-average prices and quantities of domestic and imported product 4,[1] by quarters, January 2014 through March 2017**

* * * * * * *

**Figure V-6**
**ESBR: Weighted-average prices and quantities of domestic and imported product 5,[1] by quarters, January 2014 through March 2017**

* * * * * * *

**Figure V-7**
**ESBR: Weighted-average prices and quantities of domestic and imported product 6,[1] by quarters, January 2014 through March 2017**

* * * * * * *

## Price trends

Overall, prices increased during January 2014 to March 2017. In general, prices declined between January 2014 to early to mid-2015, fluctuated until late 2016, and increased into the first quarter of 2017. Table V-9 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent. For Product 1, import price increases ranged from *** to *** percent during January 2014 to March 2017. Import price increases for product 2 ranged from *** to *** percent, but *** import prices declined by *** percent. Import prices from Korea and Poland for product 3 declined between *** to *** percent, while *** import prices increasing by *** percent. Import price decreases for product 4 ranged from *** to *** percent, and increases ranged from *** percent to *** percent. For product 5, import price increases ranged from *** to *** percent. *** import prices for product 6 increased by *** percent.

**Table V-9**
**ESBR: Number of quarters containing observations, low price, high price and change in price over period by product and source, January 2014 through March 2017**

* * * * * * *

## Price comparisons

As shown in table V-10, prices for product imported from Brazil were below those for U.S.-produced product in 30 of 32 instances (for a total of 158.3 million pounds); margins of underselling ranged from 0.6 to 20.6 percent. In the remaining two instances (713,900 pounds), prices for product from Brazil were 1.2 percent above prices for the domestic product. Prices for product imported from Korea were below those for U.S.-produced product in 56 of 73 instances (61.6 million pounds); margins of underselling ranged from 0.3 to 30.8 percent. In the remaining 17 instances (30.2 million pounds), prices for product from Korea were between 0.7 to 24.6 percent above prices for the domestic product. Prices for product imported from Mexico were below those for U.S.-produced product in 37 of 71 instances (56.7 million

pounds); margins of underselling ranged from 0.1 to 16.3 percent. In the remaining 34 instances (13.6 million pounds), prices for product from Mexico were between 1.5 to 138.1 percent above prices for the domestic product. Prices for product imported from Poland were below those for U.S.-produced product in 27 of 42 instances (9.1 million pounds); margins of underselling ranged from 0.1 to 53.2 percent. In the remaining 15 instances (3.7 million pounds), prices for product from Poland were between 1.1 to 120.6 percent above prices for the domestic product. Overall, prices from subject countries were below those for U.S. produced ESBR in 150 of 218 instances (285.7 million pounds).

**Table V-10**
**ESBR: Instances of underselling/overselling and the range and average of margins, by country, January 2014 through March 2017**

| Source | Underselling | | | | |
|---|---|---|---|---|---|
| | Number of quarters | Quantity[1] (pounds) | Average margin (percent) | Margin range (percent) | |
| | | | | Min | Max |
| Brazil | 30 | 158,312,826 | 8.6 | 0.6 | 20.6 |
| Korea | 56 | 61,629,992 | 11.0 | 0.3 | 30.8 |
| Mexico | 37 | 56,739,421 | 7.4 | 0.1 | 16.3 |
| Poland | 27 | 9,062,348 | 16.2 | 0.1 | 53.2 |
| Total, underselling | 150 | 285,744,587 | 10.6 | 0.1 | 53.2 |
| **Source** | **(Overselling)** | | | | |
| | Number of quarters | Quantity[1] (pounds) | Average margin (percent) | Margin range (percent) | |
| | | | | Min | Max |
| Brazil | 2 | 713,900 | (1.2) | (1.2) | (1.2) |
| Korea | 17 | 30,184,086 | (6.8) | (0.7) | (24.6) |
| Mexico | 34 | 13,591,590 | (42.4) | (1.5) | (138.1) |
| Poland | 15 | 3,692,276 | (32.2) | (1.1) | (120.6) |
| Total, overselling | 68 | 48,181,852 | (30.1) | (0.7) | (138.1) |

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

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

## LOST SALES AND LOST REVENUE

In the preliminary phase of the investigation, the Commission requested that U.S. producers of ESBR report purchasers where they experienced instances of lost sales or revenue due to competition from imports of ESBR from Brazil, Korea, Mexico, and Poland during January 2013 to June 2016. Two U.S. producers submitted lost sales and lost revenue allegations. The two responding U.S. producers identified 12 firms where they lost sales or revenue (allegations consisted of five lost revenue allegations and 15 consisting of both types of allegations). *** producers identified Brazil, Korea, Mexico, and Poland as the countries of origin for their lost sales and lost revenue allegations. Both producers stated that sales were lost and/or prices reduced between ***, on *** for ***.

In the final phase of these investigations, the Commission requested that U.S. producers and importers[12] of ESBR whether they experienced instances of lost sales or revenue due to competition from January 2014 to March 2017. The two responding U.S. producers reported lost sales and lost revenues, with both producers reporting having to reduce prices. Two of the nine responding U.S. importers reported lost revenues (and reducing prices), while five importers reported lost sales.

Staff contacted 44 purchasers and received responses from 20 purchasers.[13] Responding purchasers reported purchasing 295.6 million pounds of ESBR during 2016 (table V-11).

Of the 20 responding purchasers, 7 reported that, since 2014, they had purchased imported ESBR from Brazil instead of U.S.-produced product, 9 reported purchasing Korean product, 6 reported purchasing Mexican product, and 5 reported purchasing Polish product. Of the 12 responding purchasers, eight reported that subject import prices were lower than U.S.-produced product, and four of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Three purchasers provided estimates of the quantity of ESBR from Brazil, Korea, Mexico, and Poland purchased instead of domestic product; quantities ranged from *** (table V-12). Purchasers identified supply as a non-price reason for purchasing imported rather than U.S.-produced product.

One of 20 responding purchasers reported that U.S. producers had reduced prices in order to compete with lower-priced imports from subject countries (table V-13; 13 reported that they did not know).[14] The reported estimated price reduction was *** percent.

**Table V-11**
**ESBR: Purchasers' responses to purchasing patterns**

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**Table V-12**
**ESBR: Purchasers' responses to purchasing subject imports instead of domestic product**

* * * * * * *

**Table V-13**
**ESBR: Purchasers' responses to U.S. producer price reductions**

* * * * * * *

[12] In response to draft questionnaires, respondents requested that both importers and producers be asked about lost sales and lost revenues.

[13] Four purchasers submitted lost sales lost revenue survey responses in the preliminary phase, but did not submit purchaser questionnaire responses in the final phase.

[14] This purchaser (***) is the sales arm of producer ***.

# PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

## BACKGROUND

Goodyear and Lion, accounting for the majority of current U.S. production of ESBR, provided financial data on their ESBR operations in the final phase of these investigations. Data for East West are from that firm's preliminary phase questionnaire response for 2014 and 2015 and updated by a former company official for 2016 and both interim periods.[1] The tolling arrangement between ***. All U.S. producers reported their financial results on the basis of generally accepted accounting principles ("GAAP") and on a calendar year basis.

East West had bought the plant in Baton Rouge, Louisiana from Lion in April 2014.[2] East West ceased operations on March 31, 2017 and the company filed for bankruptcy under Chapter 11 on April 7, 2017.[3] East West stated that it had been unsuccessful in obtaining refinancing or in selling its assets to a third party and asked for the court's permission to wind-down operations and proceed to a sale of its operations or assets to the highest bidder.[4] As reported in a company press release, Lion purchased certain assets of East West in May 2017.[5]

Goodyear ***. Lion and East West reported ***. As noted in the staff report in the preliminary phase of these investigations, Lion announced it was closing the ESBR plant in Baton Rouge, Louisiana in December 2013 and following a period in which the plant was idled during February and March 2014, it was purchased by East West on April 16, 2014. Subsequently, Lion purchased the plant in Port Neches, Texas, which had been owned by Ashland Chemical, in December 2014. [6]

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[1] A revision to East West's financial data was received on June 9, 2017. ***.

[2] "SR plant thrives, two years after rebirth," Rubber News, March 1, 2016, retrieved from http://www.rubbernews.com/article/20160301/NEWS/302229996?template=printart. The plant at Baton Rouge, Louisiana was closed during December 2013 through March 2014.

[3] "East West halts operations at historic rubber facility," Rubber News, April 17, 2017, retrieved from http://www.rubbernews.com/article/20170417/NEWS/170419951?template=printart.

[4] East West attributed its bankruptcy to precipitous price declines caused by below-cost dumping by foreign producers in the domestic market. Case 17-10327 in the U.S. Bankruptcy Court for the Middle District of Louisiana, doc. 15 filed 04/10/17. East West acknowledged that liquidity problems forced it to close ***. Joint respondents' posthearing brief, exh. 1 and exh. 2,***.

[5] "Lion Elastomers completed the purchase of assets from East West Copolymer," retrieved from http://www.lioncopolymer.com/main/news_item?id=68769, retrieved on June 6, 2017. The press release also states that the East West site will be decommissioned and will remain idled while Lion evaluates its strategic options. Also, see hearing transcript, p. 64 (Zeringue) and Joint respondents' posthearing brief, exh. 1 and exh. 2 (***).

[6] "Lion Copolymer acquires Ashland's elastomers unit in Texas, US," Chemicals Technology, December 3, 2014, retrieved from http://www.chemicals-technology.com/news/newslion-copolymeracquires-ashlands-elastomers-unit-in-texas-us-4458583.

This section of the report presents data for the entire ESBR industry including ***. Information on the merchant market is available in appendix C at table C-2.

## OPERATIONS ON ESBR

Table VI-1 presents aggregated data on U.S. producers' operations in relation to ESBR over the period examined, while table VI-2 shows the change in average unit values for the data presented in table VI-1 between yearly periods. Table VI-3 presents selected company-specific financial data.

**Table VI-1**
**ESBR: Results of operations of U.S. producers, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

**Table VI-2**
**ESBR: Changes in average unit values, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

**Table VI-3**
**ESBR: Results of operations of U.S. producers, by firm, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

### Net sales quantity and value

Net sales of ESBR consisted of commercial sales (*** percent), internal consumption (*** percent), and transfers to related firms (*** percent), by quantity, from January 2014 through March 2017. As mentioned earlier in this section, Goodyear ***.[7]

As shown in table VI-1, aggregate ESBR sales quantity and value decreased from 2014 to 2015 and, while sales quantity rose *** in 2016, sales value continued to decline. In January-March 2017 net sales quantity was lower but value was higher than in the comparable period in 2016. Sales by East West increased by quantity and value from 2014 to 2016, while sales by Lion fell in that period; sales by Lion increased in 2016 by quantity but decreased by value. Goodyear's sales declined from 2014 to 2016 by quantity and value. Sales quantity was lower in interim 2017 (***) than in interim 2016 while sales value was higher (***).

The aggregate net sales unit value (per 1,000 pounds) for ESBR decreased from $*** in 2014 to $*** in 2015 and was lower at $*** in 2016; however, it was higher at $*** in January-March 2017 than in January-March 2016 ($***).[8] According to industry officials,

[7] ***.

production overcapacity and falling rubber prices combined with stagnant or declining demand from tire and automotive customers led to declining prices.[9] More recently, butadiene prices rose sharply leading to higher prices for ESBR as well as ESBR production costs (discussed later).[10]

**Cost of goods sold and gross profit or (loss)**

Raw materials account for the single largest component of overall COGS, accounting for between *** percent (in interim 2017) and *** percent (in 2015) of total COGS. Raw material costs, which represented *** percent of net sales value in 2014, declined irregularly to *** percent of net sales value in 2016, but rose to *** percent in interim 2017. The production process is continuous and hearing testimony indicated that product is made for stock and that the majority of sales are from inventory.[11] There is undoubtedly a time lag between purchases of raw materials inputs, conversion, and sales of finished product that is reflected in raw materials' cost-to-sales ratio. Lion and Goodyear provided cost data for their consumption of input monomers butadiene and styrenes and stated that these costs were included in their raw material costs.[12] Both firms stated that the consumption ratio of input monomer to sales of ESBR did not change during January 1, 2014 and March 31, 2017.[13] Other factory costs, which are composed of both variable and fixed facility overhead costs, are the second largest component of total COGS. These costs decreased from 2014 to 2016 on a dollar basis (as well as on a per-unit basis), but increased as a share of sales and as a share of total COGS. Other factory costs were lower on a dollar basis, as a percentage of total net sales or of total COGS, and on a per-unit basis in January-March 2017 compared with the same period one year earlier. Lion and Goodyear provided cost data for their utility costs of electricity and steam and stated

(…*continued*)

[8] For example, *see* "SR prices, overcapacity pose challenge for industry," Rubber News.com, October 6, 2014, retrieved from http://www.rubbernews.com/article/20141006/NEWS/310069982?template=printart, on August 10, 2016. Also, a fall in crude petroleum prices resulted in some lower raw material costs, including butadiene, an element of ESBR. There apparently was a shortage of butadiene in early 2017 leading to dramatically higher prices for that raw material input and ESBR sales prices. Reportedly, the industry uses formulas that link sales prices to customers with raw material costs of butadiene and styrene although the price formula includes a conversion fee, or "adder," which does not change with changes in butadiene or styrene prices but is nonetheless a subject of negotiation during contract discussions and has been under pressure since 2012. Hearing transcript, pp. 22-23 (Zeringue), 40 (Szamosszeggi), and 71-73 (Rikhoff). Petitioners' posthearing brief, att. 5.

[9] Witnesses at the hearing indicated that ESBR is used mainly in replacement tires, off-the-road tires (in which demand has fallen over 40 percent), and conveyor belting (in which use is also down sharply). Hearing transcript, pp. 57-58 (Zeringue and Szamosszeggi).

[10] ***.

[11] Hearing transcript, pp. 83-84 (Zeringue and McGrath).

[12] U.S. producers' questionnaire, section III-9a.

[13] U.S. producers' questionnaire responses of Goodyear and Lion, section III-9b. ***.

that these costs were included in their other factory costs. Table VI-4 shows cost data for input monomers and utilities.

**Table VI-4**
**ESBR: Input monomer and utility costs of Goodyear and Lion combined, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

The last component of COGS, direct labor, increased irregularly from 2014 to 2016, and was lower in January-March 2017 compared to January-March 2016. As a share of COGS, direct labor was between *** percent (in January-March 2017) and *** percent (in January-March 2016).

The COGS to sales ratio increased by *** percentage points from 2014 (*** percent) to 2016 (*** percent), and was *** percentage points lower in January-March 2017 (*** percent) than in January-March 2016 (*** percent).

Gross profit fell from $*** in 2014 to a loss of $*** in 2016, but recovered to a profit of $*** in January-March 2017 compared with a loss of $*** in January-March 2016. ***.

## SG&A expenses and operating income or (loss)

As shown in table VI-1, the industry's SG&A expense ratios (i.e., total SG&A expenses divided by total revenue) were between *** percent (2015) and *** percent (2016) and between *** percent (interim 2016) and *** percent (interim 2017). Goodyear ***.[14]

Operating losses increased irregularly from a *** in 2014 to a *** in 2016. The three firms together reported a lower operating loss in interim 2017 ($***) compared with the operating loss posted in interim 2016 ($***).

## Other expenses and net income or (loss)

Other expenses (net of other income), increased from $*** in 2014 to $*** in 2015 before decreasing to $*** in 2016 and were lower in January-March 2017 ($***) than in January-March 2016 ($***). Interest expense, reported by ***, accounted for the majority of other expenses reported.[15]

The industry's net loss increased from a *** in 2014 to a *** in 2016, was improved but still negative in January-March 2017 ($***) compared to January-March 2016 ($***).

[14] Goodyear's ***.

[15] Petitioners stated that ***." Petitioners' postconference brief, p. 17. They explained that "during this time {(2013-2015)}, ***." Petitions Vol. I, p. 42.

## Variance analysis

A variance analysis for the operations of U.S. producers of ESBR is presented in table VI-5.[16] The information for this variance analysis is derived from table VI-1. The analysis illustrates that from 2014 to 2016, the increase in operating losses is primarily attributable to a higher unfavorable price variance (unit prices fell) despite a favorable net/cost variance (i.e., unit costs and expenses decreased). It also indicates that between the interim periods, as sales unit values rose, the favorable price variance was greater than the unfavorable net cost/expense variance (unit costs and expenses rose) leading to a positive operating and net income variance.

**Table VI-5**
**ESBR: Variance analysis on the operations of U.S. producers, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

## CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-6 presents capital expenditures and research and development ("R&D") expenses by firm. As shown in table VI-6, ***.

**Table VI-6**
**ESBR: Capital expenditures and R&D expenses of U.S. producers, 2014-16, January-March 2016, and January-March 2017**

* * * * * * *

Goodyear stated that the firm's capital expenditures were ***. Lion stated that ***.[17]

[16] 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 or expense variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. 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. The overall volume component of the variance analysis is generally small.

[17] ***.

## ASSETS AND RETURN ON ASSETS

Table VI-7a presents data on the U.S. producers' total assets and the ratio of operating income or (loss) to net assets.

**Table VI-7a**
**ESBR: U.S. producers' total assets and return on investment, 2014-16**

* * * * * * *

The narrative responses of Goodyear and Lion regarding the age of each firm's assets, technologies used to produce ESBR, and efficiencies of the firm's equipment are shown in table VI-7b.[18]

**Table VI-7b**
**ESBR: Narratives relating to age, technologies, and efficiencies of U.S. producers' assets**

* * * * * * *

## CAPITAL AND INVESTMENT

The Commission requested U.S. producers of ESBR to describe any actual or potential negative effects of imports of ESBR from Brazil, Korea, Mexico, or Poland on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-8 presents a tally of U.S. producers' responses and table VI-9 provides the narrative responses. As noted earlier, responses by East West for these questions are from that firm's preliminary phase questionnaire response.

**Table VI-8**
**ESBR: Actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2014**

* * * * * * *

**Table VI-9**
**ESBR: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2014**

* * * * * * *

[18] U.S. producers' questionnaire, section III-13b.

# PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

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

---

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

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

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

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

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

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

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

## THE INDUSTRY IN BRAZIL

### Overview

The Commission issued and received one foreign producers' or exporters' questionnaire from Arlanxeo Brasil S.A. ("Arlanxeo Brazil") [3]. This firm's exports to the United States accounted for *** U.S. imports of ESBR from Brazil over the period being examined. According to estimates requested of the responding Brazilian producer, the production of ESBR in Brazil reported in this part of the report accounts for *** production of ESBR in Brazil. Arlanxeo Brazil's parent company was established in April 2016 as a joint venture of LANXESS, headquartered in Cologne, Germany and Saudi Aramco, headquartered in Dhahran, Saudi Arabia.[4]

Table VII-1 lists the Brazilian producer of ESBR that responded to the Commission's questionnaire and certain 2016 summary data reported in response to Commission questionnaires. The questionnaire response covers the *** production sites of Arlanxeo Brazil, the production site at *** and the production site at ***.[5]

**Table VII-1**
**ESBR: Summary data on the firm in Brazil, 2016**

| Firm | Production (1,000 pounds) | Share of reported production (percent) | Exports to the United States (1,000 pounds) | Share of reported exports to the United States (percent) | Total shipments (1,000 pounds) | Share of firm's total shipments exported to the United States (percent) |
|---|---|---|---|---|---|---|
| Arlanxeo | *** | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** | *** |

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

### Changes in operations

As presented in table VII-2, Arlanxeo Brazil reported in its questionnaire response operational or organizational changes since January 1, 2014.

**Table VII-2**
**ESBR: Brazilian producer's reported changes in operations since January 1, 2014**

* * * * * * *

[3] This firm was identified through a review of information submitted in the petition and contained in *** records.
[4] "About ARLANXEO", Arlanxeo website, http://arlanxeo.com/en/about-arlanxeo/
[5] Questionnaire response I-2.

## Operations on ESBR

Table VII-3 presents information on the ESBR operations of Arlanxeo Brazil. Capacity increased *** percent in 2015 and then decreased *** percent in 2016, ending *** percent lower than in 2014. Capacity is projected to decline *** percent in 2017 and to remain constant through 2018. The increase in production capacity was attributable at least in part to ***, and the decline in 2016 was due to ***. Production followed a similar trend, increasing *** percent in 2015, decreasing *** percent in 2016 (*** percent higher than in 2014), and is projected to increase *** percent in 2017 and then another *** percent in 2018. Arlanxeo Brazil responded that in view of the antidumping proceeding, the firm *** *** and that estimates are based on ***. Exports to the United States increased *** percent between 2014 and 2015, but decreased *** percent in 2016 and is projected to *** percent in 2017, reaching *** exports in 2018. Exports to markets other than the United States (principally ***) increased *** percent between 2014 and 2015, but declined *** percent in 2016, and are projected to decrease *** and *** percent in 2017 and 2018, respectively. Exports to all markets increased from *** percent in 2015 to *** percent in 2016, but their share was projected to decline in 2017 and 2018, (*** and *** percent), respectively.

**Table VII-3**
**ESBR: Data for the producer in Brazil, 2014-16, January to March 2016, and January to March 2017 and projections for calendar years 2017 and 2018**

* * * * * * *

## Alternative products

As shown in table VII-4, Arlanxeo Brazil *** as ESBR, namely ***. These other products accounted for about *** percent of total production in 2016.

**Table VII-4**
**ESBR: Brazilian producer's overall capacity and production on the same equipment as in-scope production, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## Exports

According to *Global Trade Atlas* ("GTA"),[6] the top export markets for ESBR from Brazil during 2014-2016 included the United States, Argentina, Turkey, Italy and Peru (table VII-5). In 2016, the United States was by far the largest export destination for the Brazilian product (40.7 percent), followed by Turkey (6.7 percent) and Argentina (5.4 percent).

[6] GTA data only goes to the 6-digit level and includes out-of-scope merchandise. These data are for styrene-butadiene rubber ("SBR") which contains ESBR.

**Table VII-5**
**ESBR: Brazil's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Brazil exports to the United States | 61,070 | 67,280 | 59,496 |
| Korea | 208 | 6,167 | 458 |
| Mexico | 501 | 626 | 0 |
| Poland | 1,525 | 3,017 | 3,892 |
| Subject sources | 2,234 | 9,810 | 4,350 |
| Brazil exports to other major destination markets.-- Turkey | 7,191 | 10,399 | 9,761 |
| Argentina | 7,554 | 10,577 | 7,907 |
| Italy | 6,762 | 7,597 | 6,434 |
| Peru | 5,388 | 4,395 | 6,431 |
| Costa Rica | 5,912 | 6,628 | 6,190 |
| Venezuela | 3,745 | 4,355 | 5,910 |
| Belgium | 3,060 | 6,302 | 5,898 |
| Pakistan | 1,300 | 3,104 | 4,800 |
| All other destination markets | 18,961 | 42,694 | 29,005 |
| Total Brazil exports | 123,177 | 173,142 | 146,182 |
| | Value (1,000 dollars) | | |
| Brazil exports to the United States | 59,570 | 47,883 | 38,511 |
| Korea | 181 | 2,598 | 261 |
| Mexico | 567 | 576 | 0 |
| Poland | 1,277 | 1,518 | 2,041 |
| Subject sources | 2,025 | 4,692 | 2,302 |
| Brazil exports to other major destination markets.-- Turkey | 5,927 | 5,473 | 5,412 |
| Argentina | 10,415 | 10,773 | 7,429 |
| Italy | 5,305 | 3,821 | 3,347 |
| Peru | 4,644 | 2,400 | 3,445 |
| Costa Rica | 6,215 | 5,408 | 4,655 |
| Venezuela | 6,575 | 6,869 | 6,789 |
| Belgium | 2,204 | 2,772 | 3,126 |
| Pakistan | 1,005 | 1,700 | 2,542 |
| All other destination markets | 16,348 | 23,110 | 16,060 |
| Total Brazil exports | 120,232 | 114,900 | 93,617 |

**Table continued on next page.**

**Table VII-5--Continued**
**ESBR: Brazil's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per 1,000 pounds) | | |
| Brazil exports to the United States | 975 | 712 | 647 |
| Korea | 868 | 421 | 568 |
| Mexico | 1,132 | 921 | 0 |
| Poland | 838 | 503 | 525 |
| Subject sources | 907 | 478 | 529 |
| Brazil exports to other major destination markets.-- Turkey | 824 | 526 | 554 |
| Argentina | 1,379 | 1,019 | 939 |
| Italy | 784 | 503 | 520 |
| Peru | 862 | 546 | 536 |
| Costa Rica | 1,051 | 816 | 752 |
| Venezuela | 1,756 | 1,577 | 1,149 |
| Belgium | 720 | 440 | 530 |
| Pakistan | 773 | 548 | 530 |
| All other destination markets | 862 | 541 | 554 |
| Total Brazil exports | 976 | 664 | 640 |
| | Share of quantity (percent) | | |
| Brazil exports to the United States | 49.6 | 38.9 | 40.7 |
| Korea | 0.2 | 3.6 | 0.3 |
| Mexico | 0.4 | 0.4 | 0.0 |
| Poland | 1.2 | 1.7 | 2.7 |
| Subject sources | 1.8 | 5.7 | 3.0 |
| Brazil exports to other major destination markets.-- Turkey | 5.8 | 6.0 | 6.7 |
| Argentina | 6.1 | 6.1 | 5.4 |
| Italy | 5.5 | 4.4 | 4.4 |
| Peru | 4.4 | 2.5 | 4.4 |
| Costa Rica | 4.8 | 3.8 | 4.2 |
| Venezuela | 3.0 | 2.5 | 4.0 |
| Belgium | 2.5 | 3.6 | 4.0 |
| Pakistan | 1.1 | 1.8 | 3.3 |
| All other destination markets | 15.4 | 24.7 | 19.8 |
| Total Brazil exports | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HTS subheading 4002.19 (include out-of-scope merchandise) as reported by Brazil's Foreign Trade Secretariat (SECEX) in the GTIS/GTA database, accessed May 25, 2017.

## THE INDUSTRY IN KOREA

### Overview

The Commission issued foreign producers' or exporters' questionnaires to nine firms believed to produce and/or export ESBR from Korea.[7] Useable responses to the Commission's questionnaire were received from two firms: Kumho and LG Chem. These firms' exports to the United States accounted for *** U.S. imports of ESBR from Korea over the period being examined. According to estimates requested of the responding Korean producers, the production of ESBR in Korea reported in this part of the report accounts for *** of the overall production of ESBR in Korea. Table VII-6 lists the Korean producers of ESBR that responded to the Commission's questionnaire and certain 2016 summary data reported in response to Commission questionnaires.

**Table VII-6**
**ESBR: Summary data on the firms in Korea, 2016**

| Firm | Production (1,000 pounds) | Share of reported production (percent) | Exports to the United States (1,000 pounds) | Share of reported exports to the United States (percent) | Total shipments (1,000 pounds) | Share of firm's total shipments exported to the United States (percent) |
|---|---|---|---|---|---|---|
| Kumho | *** | *** | *** | *** | *** | *** |
| LG Chem | *** | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** | *** |

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

### Changes in operations

As presented in table VII-7, one producer in Korea reported in its questionnaire response operational changes in relation to the production of ESBR since January 1, 2014.

**Table VII-7**
**ESBR: Korean producers' reported changes in operations since January 1, 2014**

* * * * * * *

***.[8] [9]

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

[8] Kumho's foreign producers'/exporters/questionnaire response, II-2 and II-3.

[9] Hearing transcript, p. 113 (Ku).

## Operations on ESBR

Table VII-8 presents information on the ESBR operations of the responding producers and exporters in Korea. Capacity declined *** percent between 2014 and 2016, due to ***. In response to Commission staff correspondence, LG Chem stated that ***. Production declined *** percent between 2014 and 2016, ***. Exports, which accounted for over *** percent of total shipments in 2016, declined by *** percent in 2014-16. Exports to the United States accounted for *** percent of total shipments, the share of which decreased by *** percentage points during 2014-16, and are projected to ***.[10] [11]

**Table VII-8**
**ESBR: Data for producers in Korea, 2014-16, January to March 2016, and January to March 2017 and projections for calendar years 2017 and 2018**

* * * * * * *

## Alternative products

Neither producer in Korea reported producing other products on the same equipment as ESBR since January 1, 2014.

## Exports

According to GTA, the top export markets for ESBR from Korea during 2014-16 included countries in Asia such as China, India, and Indonesia (table VII-9). In 2016, the United States was the fifth largest export destination for the Korean product by volume *** percent, after China *** percent, India *** percent, Indonesia *** percent, and Thailand *** percent.

[10] Other export markets included other Asian markets including ***.

[11] *** reported maintaining inventories in the United States, equivalent to *** percent of the firm's exports to the United States in 2014, *** percent in 2015, and *** percent in 2016.

**Table VII-9**
**ESBR: Korea's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Korea exports to the United States | 100,297 | 101,370 | 94,735 |
| Brazil | 8,545 | 3,146 | 5,013 |
| Mexico | 4,281 | 7,544 | 2,725 |
| Poland | 13,350 | 11,480 | 8,862 |
| Subject sources | 26,177 | 22,170 | 16,600 |
| Korea exports to other major destination markets.-- China | 250,990 | 259,304 | 294,091 |
| India | 295,084 | 222,858 | 169,255 |
| Indonesia | 115,536 | 136,261 | 167,912 |
| Thailand | 76,755 | 102,017 | 133,863 |
| Vietnam | 49,002 | 62,648 | 70,973 |
| Japan | 64,969 | 50,451 | 44,794 |
| Canada | 38,166 | 33,053 | 34,991 |
| Turkey | 53,785 | 42,650 | 28,503 |
| All other destination markets | 242,865 | 247,282 | 209,804 |
| Total Korea exports | 1,313,627 | 1,280,065 | 1,265,520 |
| | Value (1,000 dollars) | | |
| Korea exports to the United States | 94,875 | 73,770 | 67,363 |
| Brazil | 8,703 | 2,515 | 3,602 |
| Mexico | 4,030 | 4,982 | 1,924 |
| Poland | 12,977 | 7,868 | 5,687 |
| Subject sources | 25,710 | 15,365 | 11,214 |
| Korea exports to other major destination markets.-- China | 211,579 | 160,502 | 189,763 |
| India | 244,726 | 133,884 | 105,814 |
| Indonesia | 99,285 | 85,612 | 101,875 |
| Thailand | 66,372 | 64,339 | 81,041 |
| Vietnam | 42,079 | 38,321 | 44,446 |
| Japan | 62,845 | 38,107 | 33,251 |
| Canada | 36,582 | 23,694 | 25,211 |
| Turkey | 44,759 | 25,098 | 17,255 |
| All other destination markets | 220,720 | 164,725 | 138,807 |
| Total Korea exports | 1,149,534 | 823,416 | 816,041 |

Table continued on next page.

**Table VII-9 Continued**
**ESBR: Korea's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per 1,000 pounds) | | |
| Korea exports to the United States | 946 | 728 | 711 |
| Brazil | 1,018 | 799 | 718 |
| Mexico | 941 | 660 | 706 |
| Poland | 972 | 685 | 642 |
| Subject sources | 982 | 693 | 676 |
| Korea exports to other major destination markets.-- China | 843 | 619 | 645 |
| India | 829 | 601 | 625 |
| Indonesia | 859 | 628 | 607 |
| Thailand | 865 | 631 | 605 |
| Vietnam | 859 | 612 | 626 |
| Japan | 967 | 755 | 742 |
| Canada | 959 | 717 | 720 |
| Turkey | 832 | 588 | 605 |
| All other destination markets | 909 | 666 | 662 |
| Total Korea exports | 875 | 643 | 645 |
| | Share of quantity (percent) | | |
| Korea exports to the United States | 7.6 | 7.9 | 7.5 |
| Brazil | 0.7 | 0.2 | 0.4 |
| Mexico | 0.3 | 0.6 | 0.2 |
| Poland | 1.0 | 0.9 | 0.7 |
| Subject sources | 2.0 | 1.7 | 1.3 |
| Korea exports to other major destination markets.-- China | 19.1 | 20.3 | 23.2 |
| India | 22.5 | 17.4 | 13.4 |
| Indonesia | 8.8 | 10.6 | 13.3 |
| Thailand | 5.8 | 8.0 | 10.6 |
| Vietnam | 3.7 | 4.9 | 5.6 |
| Japan | 4.9 | 3.9 | 3.5 |
| Canada | 2.9 | 2.6 | 2.8 |
| Turkey | 4.1 | 3.3 | 2.3 |
| All other destination markets | 18.5 | 19.3 | 16.6 |
| Total Korea exports | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HTS subheading 4002.19 (include out-of-scope merchandise) as reported by Korea's Customs and Trade Development Institution in the GTIS/GTA database, accessed May 22, 2017.

## THE INDUSTRY IN MEXICO

### Overview

The Commission issued and received a usable foreign producers' or exporters' questionnaire from Negromex. [12] This firm's exports to the United States accounted for approximately *** percent of U.S. imports of ESBR from Mexico over the period being examined. According to estimates requested of the responding producer, the production of ESBR in Mexico reported in this part of the report accounts for *** of the overall production of ESBR in Mexico.[13] Table VII-10 lists the producer of ESBR in Mexico that responded to the Commission's questionnaire and certain 2016 summary data reported in response to Commission questionnaires.

**Table VII-10**
**ESBR: Summary data on the firm in Mexico, 2016**

| Firm | Production (1,000 pounds) | Share of reported production (percent) | Exports to the United States (1,000 pounds) | Share of reported exports to the United States (percent) | Total shipments (1,000 pounds) | Share of firm's total shipments exported to the United States (percent) |
|---|---|---|---|---|---|---|
| Negromex | *** | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** | *** |

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

### Changes in operations

As presented in table VII-11, Negromex reported in its questionnaire response operational or organizational changes since January 1, 2014.

**Table VII-11**
**ESBR: Mexican producer's reported changes in operations since January 1, 2014**

* * * * * * *

### Operations on ESBR

Table VII-12 presents information on the ESBR operations of Negromex. Capacity remained the same during 2014-16, and is projected to *** in 2017 and in 2018. Capacity utilization declined from *** percent in 2014 to *** percent in 2016 but is forecasted to remain at *** through 2018. Exports accounted for an increasing share of total shipments from *** percent in 2015 to *** percent in 2016. Exports to the United States, Negromex's *** export

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

[13] Hearing transcript, p. 11 (Okun).

market, fell from *** to *** percent between 2014 and 2015, then increased to *** percent in 2016, and are projected to decline to *** percent through 2018.

**Table VII-12**
**ESBR: Data for the producer in Mexico, 2014-16, January to March 2016, and January to March 2017 and projections for calendar years 2017 and 2018**

* * * * * * *

### Alternative products

As shown in table VII-13, Negromex also produced *** on the same equipment as ESBR.[14] These other products accounted for *** percent in 2014 and *** percent in 2016 of total production.

**Table VII-13**
**ESBR: Mexican producer's overall capacity and production on the same equipment as subject production, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## Exports

According to GTA, the top export markets for ESBR from Mexico during 2014-16, were the United States (58.6 percent), followed by Spain (8.8 percent) and Belgium (8.1 percent) (table VII-14).

[14] Negromex stated that ***, affects its ability to shift between products.

**Table VII-14**
**ESBR: Mexico's SBR exports by destination market, 2014-16**

| Item | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Mexico exports to the United States | 143,225 | 130,108 | 128,674 |
| Brazil | 7,005 | 7,154 | 6,826 |
| Korea | 261 | 126 | 141 |
| Poland | 0 | 0 | 1,138 |
| Subject sources | 7,265 | 7,280 | 8,106 |
| Mexico exports to other major destination markets.-- Spain | 19,259 | 15,068 | 19,309 |
| Belgium | 24,788 | 27,035 | 17,754 |
| China | 13,796 | 12,446 | 8,684 |
| Costa Rica | 7,865 | 5,436 | 6,475 |
| Peru | 76 | 1,159 | 3,665 |
| Italy | 728 | 2,090 | 3,105 |
| Singapore | 1,109 | 3,590 | 2,816 |
| Germany | 3,323 | 1,247 | 2,796 |
| All other destination markets | 130,737 | 22,056 | 18,197 |
| Total Mexico exports | 352,172 | 227,513 | 219,581 |
| | Value (1,000 dollars) | | |
| Mexico exports to the United States | 154,650 | 109,459 | 99,695 |
| Brazil | 8,674 | 7,936 | 5,901 |
| Korea | 271 | 121 | 129 |
| Poland | 0 | 0 | 831 |
| Subject sources | 8,945 | 8,057 | 6,861 |
| Mexico exports to other major destination markets.-- Spain | 17,924 | 10,201 | 11,272 |
| Belgium | 27,867 | 24,215 | 13,954 |
| China | 13,791 | 10,711 | 7,341 |
| Costa Rica | 8,266 | 3,953 | 4,292 |
| Peru | 96 | 942 | 2,316 |
| Italy | 807 | 1,642 | 2,470 |
| Singapore | 1,229 | 3,305 | 2,498 |
| Germany | 3,847 | 990 | 1,971 |
| All other destination markets | 30,923 | 19,299 | 15,922 |
| Total Mexico exports | 268,344 | 192,774 | 168,593 |

Table continued on next page.

**Table VII-14--Continued**
**ESBR: Mexico's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per 1,000 pounds) | | |
| Mexico exports to the United States | 1,080 | 841 | 775 |
| Brazil | 1,238 | 1,109 | 864 |
| Korea | 1,041 | 959 | 913 |
| Poland | 0 | 0 | 730 |
| Subject sources | 1,231 | 1,107 | 846 |
| Mexico exports to other major destination markets.-- Spain | 931 | 677 | 584 |
| Belgium | 1,124 | 896 | 786 |
| China | 1,000 | 861 | 845 |
| Costa Rica | 1,051 | 727 | 663 |
| Peru | 1,263 | 813 | 632 |
| Italy | 1,108 | 786 | 795 |
| Singapore | 1,108 | 921 | 887 |
| Germany | 1,158 | 794 | 705 |
| All other destination markets | 237 | 875 | 875 |
| Total Mexico exports | 762 | 847 | 768 |
| | Share of quantity (percent) | | |
| Mexico exports to the United States | 40.7 | 57.2 | 58.6 |
| Brazil | 2.0 | 3.1 | 3.1 |
| Korea | 0.1 | 0.1 | 0.1 |
| Poland | 0.0 | 0.0 | 0.5 |
| Subject sources | 2.1 | 3.2 | 3.7 |
| Mexico exports to other major destination markets.-- Spain | 5.5 | 6.6 | 8.8 |
| Belgium | 7.0 | 11.9 | 8.1 |
| China | 3.9 | 5.5 | 4.0 |
| Costa Rica | 2.2 | 2.4 | 2.9 |
| Peru | 0.0 | 0.5 | 1.7 |
| Italy | 0.2 | 0.9 | 1.4 |
| Singapore | 0.3 | 1.6 | 1.3 |
| Germany | 0.9 | 0.5 | 1.3 |
| All other destination markets | 37.1 | 9.7 | 8.3 |
| Total Mexico exports | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HS subheading 4002.19 as reported in the GTA database, accessed May 22, 2017.

## THE INDUSTRY IN POLAND

### Overview

The Commission issued and received one foreign producers' or exporters' questionnaire from Synthos.[15] Synthos' exports to the United States accounted for *** U.S. imports of ESBR from Poland over the period being examined. According to estimates requested of the responding producer, the production of ESBR in Poland reported in this part of the report accounts for *** of the overall production of ESBR in Poland. Table VII-15 lists the producer of ESBR in Poland that responded to the Commission's questionnaire and certain 2016 summary data reported in response to Commission questionnaires.

**Table VII-15**
**ESBR: Summary data on the firm in Poland, 2016**

| Firm | Production (1,000 pounds) | Share of reported production (percent) | Exports to the United States (1,000 pounds) | Share of reported exports to the United States (percent) | Total shipments (1,000 pounds) | Share of firm's total shipments exported to the United States (percent) |
|---|---|---|---|---|---|---|
| Synthos | *** | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** | *** |

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

### Changes in operations

Synthos did not report in its questionnaire response any operational or organizational changes since January 1, 2014.

### Operations on ESBR

Table VII-16 presents information on the ESBR operations of the responding producer in Poland. Capacity remained at the same level 2014-16, and is projected to continue at that level in 2017 and 2018. Production decreased *** percent in 2015 and then increased *** percent in 2016, ending *** percent lower than in 2014. Production is projected to decrease *** percent in 2017 and remain at that level in 2018. Capacity utilization declined from *** percent in 2014 to *** percent in 2015, but increased to *** in 2016 and is projected to decrease to *** percent in 2017 and 2018. Exports accounted for approximately *** percent of total shipments in 2014-16 and are projected to decrease to approximately *** percent of total shipments in 2017 and 2018. The *** exports were to markets other than the United States, principally ***. Exports to the United States decreased from *** percent of total shipments in 2014 to *** percent in 2015, increased to *** percent in 2016, and are projected to be *** percent in 2017 and 2018. Synthos stated that ***.

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

**Table VII-16**
**ESBR: Data for the producer in Poland, 2014-16, January to March 2016, and January to March 2017 and projections for calendar years 2017 and 2018**

* * * * * * *

## Alternative products

As shown in table VII-17, Synthos produces *** on the same equipment as ESBR. Product shifting is limited by ***.

**Table VII-17**
**ESBR: Polish producer's overall capacity and production on the same equipment as subject production, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

## Exports

According to GTA (table VII-18), the top export markets for ESBR from Poland during 2016 included China (22.0 percent), India (13.0 percent), and Germany (10.1 percent). In 2016, the United States accounted for 1.4 percent to total exports from Poland.

**Table VII-18**
**ESBR: Poland's SBR exports by destination market, 2014-16**

| Item | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Poland exports to the United States | 7,319 | 4,896 | 6,116 |
| Brazil | 39,634 | 17,373 | 35,038 |
| Korea | 53 | 34 | 0 |
| Mexico | 1,629 | 3,236 | 3,437 |
| Subject sources | 41,316 | 20,643 | 38,475 |
| Poland exports to other major destination markets.-- China | 65,504 | 95,525 | 99,338 |
| India | 63,623 | 45,399 | 58,495 |
| Germany | 32,067 | 42,061 | 45,761 |
| Thailand | 5,262 | 9,220 | 38,128 |
| Serbia | 1,489 | 12,815 | 17,661 |
| France | 11,504 | 11,821 | 13,821 |
| Turkey | 20,099 | 14,491 | 13,160 |
| Italy | 11,238 | 16,764 | 11,860 |
| All other destination markets | 103,128 | 123,893 | 108,286 |
| Total Poland exports | 362,548 | 397,530 | 451,101 |
| | Value (1,000 dollars) | | |
| Poland exports to the United States | 6,011 | 2,746 | 3,496 |
| Brazil | 35,768 | 10,667 | 21,114 |
| Korea | 35 | 20 | 0 |
| Mexico | 1,579 | 2,081 | 2,265 |
| Subject sources | 37,382 | 12,768 | 23,379 |
| Poland exports to other major destination markets.-- China | 50,571 | 48,937 | 54,091 |
| India | 49,455 | 23,765 | 32,513 |
| Germany | 31,755 | 27,846 | 30,188 |
| Thailand | 4,448 | 5,372 | 20,678 |
| Serbia | 1,341 | 8,375 | 10,142 |
| France | 11,756 | 7,892 | 9,039 |
| Turkey | 19,013 | 9,695 | 8,199 |
| Italy | 9,801 | 10,884 | 7,660 |
| All other destination markets | 93,327 | 77,879 | 68,029 |
| Total Poland exports | 314,861 | 236,161 | 267,415 |

Table continued on next page.

**Table VII-18--Continued**
**ESBR: Poland's SBR exports by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per 1,000 pounds) | | |
| Poland exports to the United States | 821 | 561 | 572 |
| Brazil | 902 | 614 | 603 |
| Korea | 665 | 586 | 0 |
| Mexico | 969 | 643 | 659 |
| Subject sources | 905 | 619 | 608 |
| Poland exports to other major destination markets.-- China | 772 | 512 | 545 |
| India | 777 | 523 | 556 |
| Germany | 990 | 662 | 660 |
| Thailand | 845 | 583 | 542 |
| Serbia | 901 | 654 | 574 |
| France | 1,022 | 668 | 654 |
| Turkey | 946 | 669 | 623 |
| Italy | 872 | 649 | 646 |
| All other destination markets | 905 | 629 | 628 |
| Total Poland exports | 868 | 594 | 593 |
| | Share of quantity (percent) | | |
| Poland exports to the United States | 2.0 | 1.2 | 1.4 |
| Brazil | 10.9 | 4.4 | 7.8 |
| Korea | 0.0 | 0.0 | 0.0 |
| Mexico | 0.4 | 0.8 | 0.8 |
| Subject sources | 11.4 | 5.2 | 8.5 |
| Poland exports to other major destination markets.-- China | 18.1 | 24.0 | 22.0 |
| India | 17.5 | 11.4 | 13.0 |
| Germany | 8.8 | 10.6 | 10.1 |
| Thailand | 1.5 | 2.3 | 8.5 |
| Serbia | 0.4 | 3.2 | 3.9 |
| France | 3.2 | 3.0 | 3.1 |
| Turkey | 5.5 | 3.6 | 2.9 |
| Italy | 3.1 | 4.2 | 2.6 |
| All other destination markets | 28.4 | 31.2 | 24.0 |
| Total Poland exports | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HTS subheading 4002.19 (include out-of-scope merchandise) as reported by GTIS/GTA database, accessed May 22, 2017.

## THE COMBINED INDUSTRIES IN THE SUBJECT COUNTRIES

Table VII-19 presents information on the ESBR operations of the responding producers and exporters in all responding subject countries combined for 2014-16, January to March 2016, and January to March 2017, as well as projections for 2017-18.

**Table VII-19**
**ESBR: Data on combined industries in subject countries, 2014-16, January to March 2016, and January to March 2017 and projection calendar years 2017 and 2018**

* * * * * * *

## U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-20 presents data on U.S. importers' reported inventories of ESBR. Inventories of imports from subject sources decreased *** percent between 2014 and 2015 and then increased *** percent in 2016, ending *** percent lower than in 2014.

**Table VII-20**
**ESBR: U.S. importers' inventories, 2014-16, January to March 2016, and January to March 2017Ratio to total shipments of imports**

* * * * * * *

**Table VII-20**
**ESBR: U.S. importers' inventories, 2014-16, January to March 2016, and January to March 2017Ratio to total shipments of imports**

* * * * * * *

## U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of ESBR after March 31, 2017. Eleven out of sixteen importers did so (table VII-21).

**Table VII-21**
**ESBR: Arranged imports, April 2017 through March 2018**

* * * * * * *

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

Two countries, Poland and Korea, reported that their ESBR exports were affected by third country trade remedy proceedings. In 2015, exports of ESBR from Poland to Brazil were subject to antidumping duties, but Brazil determined that for public interest reasons, it would suspend the application of the measure for two years, until November 20, 2017. [16] Brazil's antidumping orders on ESBR from Korea were reportedly terminated as of June 16, 2016.[17] Also, in January 2016, India initiated an antidumping duty action on 1500 and 1700 SBR grades originating in or exported from the EU (which includes ESBR from Poland), Korea, and Thailand.[18] [19] The government of Mexico applied antidumping duties on imports of ESBR from Brazil from 1996 until May 28, 2016, after which the measure ended.[20]

## 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.'"[21]

Total global ESBR capacity as compared to other synthetic rubber products and the global totals are detailed in Table VII-22. ESBR accounts for the largest share of global synthetic rubber capacity, and during the 2014-16 period amounted to an average of *** billion pounds, or about *** percent of the global synthetic rubber capacity total of *** billion pounds.[22] Projections for the three-year period encompassing 2016-19 reflect *** in global ESBR capacity from the current *** billion pounds yearly total *** when capacity is projected to *** by *** percent to about *** billion pounds owing to a ***. Solution SBR (SSBR), a competitive product,

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[16] Camex Res. No. 96, Oct. 2016, Brazil's Ministry of External Relations website, www.camex.itamaraty.gov.br

[17] LG Chemical's postconference brief, August 16, 2016, p. 5.

[18] Synthos' foreign producers'/exporters' questionnaire response, section II-9.

[19] Kumho's foreign producers'/exporters/ questionnaire response, section II-9.

[20] ARLANXEO Brasil S.A. postconference brief, August 16, 2016, p. 2.

[21] *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867 (Fed. Cir. 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).

22 Polybutadiene rubber (BR) volumes are near those of ESBR. BR is used extensively in tire tread and sidewall compounds. By itself, BR has poor traction and processing characteristics and is typically blended with ESBR. It is popularly used in heavy truck and bus tires, whereas ESBR is used principally in the production of car and light truck tires and truck tire retread compounds. "Synthetic Rubber Manual," IISRP, 2012. "Styrene-Butadiene elastomers (SBR) Handbook," ***, December 2015, p. 13.

is expected to *** *** percent in 2017 from the previous year to *** billion pounds and remain steady through 2019 due to ***, which in aggregate will account for an *** of SSBR annually.[23]

**Table VII-22**
**ESBR: Global synthetic rubber capacities by type of rubber, 2014-16 and forecasts for 2017-19**

* * * * * * *

During the period 2010-14, global ESBR capacity *** about *** percent, reaching *** billion pounds. Growth slowed to a *** percent increase during 2014-16, ending in the current *** billion pounds in 2016. Holding patterns as noted are projected through 2018 with a slight growth of *** percent projected for 2019 to *** billion pounds.[24] The total for all synthetic rubber capacity is projected to *** by an additional *** percent during the three-year period 2016-2019.

IISRP points to some notable global capacity trends in the synthetic rubber industry. First, *** has created the greatest challenge facing the industry in the last three years – ***. China is the *** of ESBR with an estimated output in 2015 of almost *** percent of the *** while operating at a capacity utilization rate of *** about *** percent.[25] Chinese industry capacity for all forms of synthetic rubber in 2016 was estimated to approximate *** percent of total global synthetic rubber capacity,[26] and ESBR, together with certain other synthetic forms, will reportedly continue in a *** until the market ***. Second, most capacity expansion is taking place in the ***, and will likely *** China's capacity during the 2017-19 forecast period. Third, several projects have been *** due to global market conditions, including certain *** facilities in ***.[27] [28]

In April 2015, "***" list was released by the *** highlighting several key synthetic rubber sectors contributing to ***, including a *** percent overall capacity utilization rate for styrene-butadiene rubbers (SBR).[29] Global ESBR capacity utilization rates, according to IHS Chemical data reported for the 1995-2015 period, the most recent data available, show that *** rates were achieved in the *** percent range during the 2004 -2007 period, with an *** percent maximum reached in ***; the remaining years were in the *** percent range until rates *** into the *** percent range during the 2012-15 period.[30]

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[23] "Worldwide Rubber Statistics 2016," *** IISRP, pp. 67-69.

[24] "Worldwide Rubber Statistics 2016," IISRP, p. 12.

[25] "Styrene-Butadiene elastomers (SBR), Chemical Economics Handbook," IHS Chemical, December 2015, pp. 19; 65.

[26] "Worldwide Rubber Statistics 2016," IISRP, p. 33.

[27] "Worldwide Rubber Statistics 2016," "Executive Summary, " IISRP, p.2. ***, IISRP, pp. 67–69.

[28] The ESBR market is currently *** globally, and demand is *** due to *** into tire compounds. Goodyear's producers' questionnaire responses, ***, May 2017.

[29] "Worldwide Rubber Statistics 2015," "Executive Summary,"IISRP, p.2.

[30] "Styrene-Butadiene Elastomers (SBR) Handbook," IHS Chemical, December 2015, p.19.

Table VII-23 details global ESBR capacities by subject and nonsubject countries, together with the United States, during the 2014-16 period of review. Nonsubject country ESBR capacity in 2016 totaled *** billion pounds, or *** percent of the global total *** billion pounds. Subject country capacity remained at *** billion pounds, or *** percent of the global ESBR total from 2014 to 2016; and the United States remained at *** billion pounds or *** percent of the ESBR global total for the same period. During 2014-2016, China continued to *** the non-subject country ESBR capacity with an average of *** billion pounds, or *** percent of the world's total ESBR capacity. Compared to 2014, China's ESBR capacity levels in 2016 *** *** percent from *** billion pounds, but remained level in 2015-16. Capacities and production levels in China are currently forecast to remain primarily *** with capacity utilization rates in the *** percent range.[31]

Other non-subject Asian countries reported in 2016, ***, *** billion pounds in total as shown, together with ***, not shown, *** billion pounds, account for another *** billion pounds of nonsubject Asian capacity, or *** percent of total global ESBR capacity. Thus, total nonsubject Asian capacity in 2016, including China, equates to *** billion pounds, or for about *** percent of global ESBR capacity.[32]

**Table VII–23**
**ESBR: Global ESBR capacity by source, 2014-16**

* * * * * * *

Nonsubject countries in Europe trail China and Asia, and in 2016 had an aggregate capacity of about *** billion pounds, or some *** percent of the global ESBR total. In 2016, Germany and Italy accounted for about *** percent of Europe's total ESBR capacity of *** billion pounds, *** percent of Europe's nonsubject capacity, and *** percent of the world's global ESBR capacity; the Czech Republic and Serbia, *** billion pounds, comprised the remainder. Russia accounts for another *** billion pounds of nonsubject capacity, or about *** percent of total global ESBR capacity. The nonsubject countries of the Mideast and Africa, and *** in Latin America, in aggregate, accounted for about *** billion pounds, or some *** percent of total global ESBR capacity in 2016.

## Global Exports

Global styrene-butadiene synthetic rubber[33] export volume in all forms, subject and nonsubject reported at the 6-digit HTS 4002.19 level, amounted to about 6.5 billion pounds in 2016, or roughly *** percent of the *** billion pound aggregate capacity previously reported for ESBR, SSBR, and SBC in table VII-22. SBR exports increased about 4.9 percent during the

[31] "Styrene-Butadiene elastomers (SBR), Handbook," IHS Chemical, December 2015, p. 65.
[32] "Worldwide Rubber Statistics 2016," IISRP, p. 33.
[33] The term SBR is officially defined by IISRP as "styrene-butadiene rubbers," "Worldwide Rubber Statistics 2016," "Nomenclature," p. 5.

period of investigation, from 6.2 billion pounds in 2014. Korea, Germany, Japan, Taiwan, France, and Poland were the leading global exporters of SBR products in order of volume, and together accounted for about 3.7 billion pounds or about 57 percent of the global total in 2016.[34] Table VII-24 presents data on global exports of ESBR by exporter between 2014 and 2016, including subject and nonsubject countries.[35]

**Table VII-24**
**ESBR: Global SBR exports by exporter, 2014-16**

| Exporter | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| United States | 410,040 | 388,929 | 399,834 |
| Brazil | 123,177 | 173,142 | 146,182 |
| Korea | 1,313,627 | 1,280,065 | 1,265,520 |
| Mexico | 352,173 | 227,513 | 219,582 |
| Poland | 362,549 | 397,530 | 451,101 |
| Subject sources | 2,151,525 | 2,078,250 | 2,082,385 |
| All other major reporting exporters.-- Germany | 543,610 | 612,270 | 640,764 |
| Japan | 498,329 | 469,625 | 481,287 |
| Taiwan | 463,353 | 461,568 | 461,530 |
| France | 451,597 | 459,394 | 424,635 |
| Russia | 247,587 | 374,512 | 363,139 |
| Singapore | 87,832 | 194,419 | 267,064 |
| Spain | 200,665 | 203,601 | 215,979 |
| Italy | 191,208 | 185,916 | 207,891 |
| Thailand | 137,782 | 190,230 | 200,991 |
| Belgium | 142,048 | 141,787 | 161,950 |
| Czech Republic | 134,555 | 129,153 | 142,660 |
| All other exporters | 484,939 | 419,858 | 401,845 |
| Total global exports | 6,145,070 | 6,309,512 | 6,451,461 |

Table continued on next page

[34] Global Trade Atlas (GTIS ) data, June 1, 2017.

[35] Were there to be shortfalls in domestic ESBR supply capability owing to the potential imposition of dumping margins on subject imports, petitioner cited the current global surplus oversupply situation and suggested ample supplies of nonsubject country surplus capacity given an estimated 70 percent global capacity utilization rate. Germany, the Czech Republic, and India were cited as examples. Hearing transcript, pp. 82-83 (Zeringue).

**Table VII-24--Continued**
**ESBR: Global SBR exports by exporter, 2014-16**

| Exporter | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Value (1,000 dollars) | | |
| United States | 492,257 | 390,658 | 370,114 |
| Brazil | 120,232 | 114,900 | 93,617 |
| Korea | 1,149,534 | 823,416 | 816,041 |
| Mexico | 268,344 | 192,774 | 168,593 |
| Poland | 314,861 | 236,161 | 267,415 |
| Subject sources | 1,852,970 | 1,367,251 | 1,345,666 |
| All other major reporting exporters.--Germany | 617,940 | 512,236 | 508,214 |
| Japan | 601,562 | 451,855 | 449,174 |
| Taiwan | 454,281 | 366,527 | 345,214 |
| France | 531,535 | 419,216 | 346,382 |
| Russia | 204,249 | 195,783 | 190,674 |
| Singapore | 108,577 | 202,963 | 256,024 |
| Spain | 240,733 | 183,056 | 187,589 |
| Italy | 194,261 | 144,162 | 154,048 |
| Thailand | 120,356 | 141,655 | 155,359 |
| Belgium | 179,521 | 133,606 | 121,555 |
| Czech Republic | 121,725 | 80,930 | 84,860 |
| All other exporters | 530,512 | 367,806 | 338,441 |
| Total global exports | 6,254,480 | 4,957,705 | 4,852,778 |
| | Unit value (dollars per 1,000 pounds) | | |
| United States | 1,210 | 1,004 | 926 |
| Brazil | 976 | 664 | 640 |
| Korea | 875 | 643 | 645 |
| Mexico | 762 | 847 | 768 |
| Poland | 868 | 594 | 593 |
| Subject sources | 861 | 658 | 646 |
| All other major reporting exporters.--Germany | 1,137 | 837 | 793 |
| Japan | 1,207 | 962 | 933 |
| Taiwan | 980 | 794 | 748 |
| France | 1,177 | 913 | 816 |
| Russia | 825 | 523 | 525 |
| Singapore | 1,236 | 1,044 | 959 |
| Spain | 1,200 | 899 | 868 |
| Italy | 1,016 | 775 | 741 |
| Thailand | 874 | 745 | 773 |
| Belgium | 1,264 | 942 | 751 |
| Czech Republic | 905 | 627 | 595 |
| All other exporters | 1,094 | 876 | 842 |
| Total global exports | 1,018 | 786 | 752 |

Table continued on next page.

**Table VII-24--Continued**
**ESBR: Global SBR exports by exporter, 2014-16**

| Exporter | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Share of quantity (percent) | | |
| United States | 6.7 | 6.2 | 6.2 |
| Brazil | 2.0 | 2.7 | 2.3 |
| Korea | 21.4 | 20.3 | 19.6 |
| Mexico | 5.7 | 3.6 | 3.4 |
| Poland | 5.9 | 6.3 | 7.0 |
| Subject sources | 35.0 | 32.9 | 32.3 |
| All other major reporting exporters.-- Germany | 8.8 | 9.7 | 9.9 |
| Japan | 8.1 | 7.4 | 7.5 |
| Taiwan | 7.5 | 7.3 | 7.2 |
| France | 7.3 | 7.3 | 6.6 |
| Russia | 4.0 | 5.9 | 5.6 |
| Singapore | 1.4 | 3.1 | 4.1 |
| Spain | 3.3 | 3.2 | 3.3 |
| Italy | 3.1 | 2.9 | 3.2 |
| Thailand | 2.2 | 3.0 | 3.1 |
| Belgium | 2.3 | 2.2 | 2.5 |
| Czech Republic | 2.2 | 2.0 | 2.2 |
| All other exporters | 7.9 | 6.7 | 6.2 |
| Total global exports | 100.0 | 100.0 | 100.0 |

Source: Official export statistics under HS subheading 4002.19 as reported by the GTA database, accessed May 16, 2017.

China's principal SBR exports by country for the period 2014-16 are presented in the following table VII-25, together with those to the United States. China, as previously noted, has ***,[36] and is one of the top 20 leading global exporters of SBR products.[37]

[36] Worldwide Rubber Statistics 2016, IISRP.
[37] GTIS data, June 1, 2017.

**Table VII-25**

**ESBR: China SBR exports by destination market, 2014-16**

| Item | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| United States | 16,426 | 10,251 | 9,930 |
| All other major reporting exporters.-- | | | |
| Belgium | 21,137 | 16,524 | 15,285 |
| Indonesia | 17,574 | 13,139 | 11,791 |
| Thailand | 15,917 | 11,610 | 11,026 |
| Vietnam | 13,448 | 10,813 | 10,774 |
| Russia | 3,453 | 2,455 | 9,087 |
| Venezuela | 82 | 397 | 7,751 |
| Taiwan | 9,278 | 8,612 | 6,530 |
| India | 8,232 | 4,765 | 5,066 |
| Turkey | 14,615 | 11,591 | 4,789 |
| Hong Kong | 8,586 | 7,220 | 4,601 |
| Malaysia | 8,160 | 4,146 | 4,377 |
| All other exporters | 52,559 | 32,719 | 25,270 |
| Total China exports | 189,468 | 134,241 | 126,276 |

Source: Official export statistics under HTS subheading 4002.19. Includes out-of-scope product reported by Eurostat in the GTIS/GTA database, accessed June 1, 2017. China's exports of SBR are reported under eight, 8-digit subcategories. Data are ranked on 2016.

China's total exports of SBR declined 33 percent during 2014-16, including declines to 9 of the eleven top countries, the United States, and other unidentified countries. In 2016, Belgium was the leading export destination, accounting for 12.1 percent of the total; however, trade was dominated by several nonsubject Asian countries, led in order by Indonesia, Thailand, Vietnam, Taiwan, India, Hong Kong, and Malaysia, which in aggregate accounted for 54 million pounds or about 43 percent of the total. Exports to Russia and Venezuela increased significantly during 2015-16, and in 2016, the two countries in aggregate accounted for about 17 million pounds, or 13 percent of total SBR exports. Exports to the United States accounted for approximately 10 million pounds, or some 8 percent of the total.

Two of the eight, 8-digit subheadings under which China exports SBR globally, subheadings 4002.19.11, "Non-Solution-Polymerized Styrene Butadiene Rubber, Not Worked," and 4002.19.12, "Non-Solution-Polymerized Styrene Butadiene Rubber, Oil Fitted" totaled about 30 million pounds, or 23.8 percent of all Chinese global SBR exports in 2016. In contrast, Chinese exports to the United States under these subheadings only amounted to 4 percent of the U.S. total, while a third 8-digit subheading, 4002.19.19, "Other Carboxylated SBR in Primary Form, Nes," accounted for 80.8 percent of the U.S. total.

China has experienced a growing trade deficit in SBR product volume during 2014-16, from a deficit position of 617 million pounds in 2014, to 909 million pounds in 2016, representing a trade deficit increase of about 292 million pounds, or 47 percent during the period. Korea, Japan, Taiwan, and Poland were the leading trade deficit countries in order of

importance, and in aggregate accounted for a trade deficit of 576 million pounds, or 63 percent of the total in 2016. Korea alone accounted for 286 million pounds, or 31 percent of China's trade deficit in 2016, while Japan and Taiwan accounted for 198 million pounds, or 22 percent in aggregate. [38] [39]

Germany's principal SBR exports by country for 2014-16 are presented in the following table VII-26. Germany is the second largest global exporter of SBR products, and potentially has excess capacity.

**Table VII-26**
**ESBR: Germany SBR exports by destination market, 2014-16**

| Item | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| United States | 67,493 | 88,412 | 83,927 |
| All other major reporting export destinations: China | 43,212 | 53,327 | 72,725 |
| France | 51,327 | 53,515 | 55,200 |
| Brazil | 41,442 | 35,931 | 38,088 |
| Romania | 27,980 | 27,507 | 37,099 |
| Hungary | 26,212 | 32,357 | 27,874 |
| Poland | 18,279 | 27,586 | 27,270 |
| Turkey | 9,352 | 14,491 | 24,771 |
| Korea | 19,076 | 20,591 | 24,411 |
| Czech Republic | 25,602 | 26,286 | 24,140 |
| United Kingdom | 29,466 | 32,672 | 24,031 |
| Netherlands | 16,370 | 16,289 | 20,486 |
| All other exports | 167,799 | 183,307 | 180,079 |
| Total Germany exports | 543,610 | 612,270 | 640,764 |

Source: Official export statistics under HTS subheading 4002.19. Includes out-of-scope product reported by Eurostat in the GTIS/GTA database, accessed June 1, 2017. Germany's exports of SBR are reported under four, 8-digit subcategories. Data are ranked on 2016.

Germany's total exports of SBR increased 17.8 percent during 2014-16 period, including increases in six of the top nine identified nonsubject countries, together with increases in Korea and Poland, other unidentified countries, and the United States which eclipsed all reported

[38] Official trade balance statistics under HTS subheading 4002.19 as reported by China Customs. Includes certain out-of-scope product, GTA/GTIS database accessed June 1, 2017.

[39] Both petitioners and respondents, in general, reportedly do not expect the development of any significant exports of Chinese ESBR into the U.S. market in the foreseeable future owing to internal Chinese demand for tires, generated in part by robust growth in car production. Hearing transcript, pp. 63-64 (Rikhoff); p. 162 (Pauken/(Sawaya).

countries with about 84 million pounds, or 13.1 percent of total German SBR export shipments in 2016. China, in 2016, was the leading nonsubject country export destination, accounting for 11.4 percent of the total; however, trade was dominated by several European countries, led in order by France, Romania, Hungary, subject Poland, the Czech Republic, United Kingdom, and the Netherlands, which in aggregate accounted for 216 million pounds, or 33.8 percent of total German exports of SBR in 2016. [40] Germany exported SBR products to Brazil, Poland, and Korea, in the aggregate volume of 89.7 million pounds, or 14 percent of total SBR exports. Turkey in the Middle East was shipped about 24.7 million pounds, or 4 percent of total.

Germany exports SBR products under four subheadings, two of principal interest, ESBR in bales under 4002.19.10, and 4002.19.90, Styrene-Butadiene Rubber (SBR) in Primary Forms, Sheets or Strip (Excl. ESBR and SSBR in Bales or latex). The other two subheadings refer to nonsubject Styrene-Butadiene Block Copolymers, and Solution SSBR. In 2016, Germany exported 209 million pounds of ESBR in bales, or 32.7 percent of total SBR exports of about 640 million pounds. Additionally, 16 million pounds of SBR, about 2.5 percent of total, were exported in sheet forms, some of which may have been as ESBR. Germany exported about 14 million pounds of ESBR in bales to the United States, representing 16.4 percent of the 84 million pounds of its total SBR export shipments to the United States, while SBR in other sheet forms was less than 1 percent of total.

[40] In 2015, ESBR producers in Western Europe were reportedly experiencing capacity utilization rates of about *** percent, in concert with certain *** in capacity, while those capacity utilization rates in the Central European region were *** accompanied by certain *** in capacity. “Styrene-Butadiene Elastomers (SBR) Handbook,” IHS Chemical, December 2015, pp. 39-48.

# APPENDIX A

# *FEDERAL REGISTER* NOTICES

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

| Citation | Title | Link |
|---|---|---|
| 81 FR 49262, July 27, 2016 | *Emulsion Styrene-Butadiene Rubber From Brazil, Korea, Mexico, and Poland; Institution of Antidumping Duty Investigations and Scheduling of Preliminary Phase Investigations* | https://www.gpo.gov/fdsys/pkg/FR-2016-07-27/pdf/2016-17713.pdf |
| 81 FR 55438, August 10, 2016 | *Emulsion Styrene-Butadiene Rubber From Brazil, the Republic of Korea, Mexico, and Poland: Initiation of Less-Than-Fair-Value Investigations* | https://www.gpo.gov/fdsys/pkg/FR-2016-08-19/pdf/2016-19769.pdf |
| 81 FR 62762, September 12, 2016 | *ITC Preliminary Determination* | https://www.gpo.gov/fdsys/pkg/FR-2016-09-12/pdf/2016-21815.pdf |
| 82 FR 11538 February 24, 2017 | *Emulsion Styrene-Butadiene Rubber From Brazil: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Negative Determination of Critical Circumstances, Postponement of Final Determination, and Extension of Provisional Measures* | https://www.gpo.gov/fdsys/pkg/FR-2017-02-24/pdf/2017-03631.pdf |
| 82 FR 11536 February 24, 2017 | *Emulsion Styrene-Butadiene Rubber From the Republic of Korea: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Affirmative Determination of Critical Circumstances, in Part, Postponement of Final Determination, and Extension of Provisional Measure* | https://www.gpo.gov/fdsys/pkg/FR-2017-02-24/pdf/2017-03637.pdf |
| 82 FR 11534 February 24, 2017 | *Emulsion Styrene-Butadiene Rubber From Mexico: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures* | https://www.gpo.gov/fdsys/pkg/FR-2017-02-24/pdf/2017-03625.pdf |

| Citation | Title | Link |
|---|---|---|
| 82 FR 11531, February 24, 2017 | *Emulsion Styrene-Butadiene Rubber From Poland: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures* | https://www.gpo.gov/fdsys/pkg/FR-2017-02-24/pdf/2017-03638.pdf |
| 82 FR 13503, March 13, 2017 | *Emulsion Styrene-Butadiene Rubber From Brazil, Korea, Mexico, and Poland; Scheduling of the Final Phase of Antidumping Duty Investigations* | https://www.gpo.gov/fdsys/pkg/FR-2017-03-13/pdf/2017-04825.pdf |
| 82 FR 33048 July 19, 2017 | *Emulsion Styrene-Butadiene Rubber From Brazil: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances* | https://www.gpo.gov/fdsys/pkg/FR-2017-07-19/pdf/2017-14954.pdf |
| 82 FR 33045 July 19, 2017 | *Emulsion Styrene-Butadiene Rubber From the Republic of Korea: Final Affirmative Determination of Sales at Less Than Fair Value, and Final Affirmative Determination of Critical Circumstances, in Part* | https://www.gpo.gov/fdsys/pkg/FR-2017-07-19/pdf/2017-14950.pdf |
| 82 FR 33062 July 19, 2017 | *Emulsion Styrene-Butadiene Rubber From Mexico: Final Affirmative Determination of Sales at Less Than Fair Value* | https://www.gpo.gov/fdsys/pkg/FR-2017-07-19/pdf/2017-14951.pdf |
| 82 FR 33061 July 19, 2017 | *Emulsion Styrene-Butadiene Rubber From Poland: Final Affirmative Determination of Sales at Less Than Fair Value* | https://www.gpo.gov/fdsys/pkg/FR-2017-07-19/pdf/2017-14952.pdf |

# APPENDIX B

# LIST OF HEARING WITNESSES

**CALENDAR OF PUBLIC HEARING**

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

**Subject:** Emulsion Styrene-Butadiene Rubber from Brazil, Korea, Mexico, and Poland

**Inv. Nos.:** 731-TA-1334-1337 (Final)

**Date and Time:** June 29, 2017 - 9:30 a.m.

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

**OPENING REMARKS:**

Petitioner (**Matthew T. McGrath**, Barnes, Richardson & Colburn, LLP)
Respondents (**William C. Sjoberg**, Adduci, Mastriani & Schaumberg, LLP)

**In Support to the Imposition of Antidumping Duty Orders:**

Barnes, Richardson & Colburn, LLP
Washington, DC
on behalf of

Lion Elastomers LLC

**Jesse Zeringue**, Chief Executive Officer, Lion Elastomers LLC

**Will Howard**, Vice President for Sales, Lion Elastomers LLC

**Bobby Rikhoff**, Consultant, Industrial Management Services

**Andrew Szamosszeggi**, Principal, Capital Trade, Inc.

**Matthew T. McGrath** )
) – OF COUNSEL
**Stephen W. Brophy** )

**In Opposition of the Imposition of**
**Antidumping Duty Orders:**

Adduci, Mastriani & Schaumberg, LLP
Washington, DC
on behalf of

Industrias Negromex, S.A. de C.V. ("Negromex")
INSA LLC ("INSA")

**Tomas Acevedo**, Commercial Director, INSA

**Jose Plaza**, Commercial Manager (America), INSA

**Daniela Quintero**, Commercial Intelligence Manager, INSA

**César Perez**, Global Sales Manager, INSA

**Maria Teresa Chavez Martinez**, Senior Corporate Counsel Contracts M&A and IP, Desc Corporativo S.A. de C.V. (a subsidiary of Grupo KUO)

**Thomas S. Prusa**, Economist, Rutgers University

**William C. Sjoberg** )
**Deanna Tanner Okun** ) – OF COUNSEL
**Rowan M. Dougherty** )

Alston & Bird
Washington, DC
on behalf of

ARLANXEO Brasil S.A.
ARLANXEO USA LLC ("ARLANXEO")

**John Sawaya**, Head of TSR NAFTA Business Unit, ARLANXEO

**Ethan Sigler**, Account Manager, ARLANXEO

**Mary Pauken**, Vice President Global Purchasing, Cooper Tire & Rubber Co.

**Kenneth Weigel** )
) – OF COUNSEL
**Anna Karass** )

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

Trade Pacific PLLC
Washington, DC
on behalf of

Kumho Petrochemical Co. Ltd.

**Bonjae Ku**, General Manager/Synthetic Rubber Overseas Sales Team, Kumho Petrochemical Co. Ltd.

**Jarrod M. Goldfeder** )
) – OF COUNSEL
**Aqmar Rahman** )

**REBUTTAL/CLOSING REMARKS:**

Petitioner (**Matthew T. McGrath**, Barnes, Richardson & Colburn, LLP,
**Jesse Zeringue**, Lion Elastomers LLC and Andrew Szamosszeggi, Capital Trade, Inc.)
Respondents (**Kenneth Weigel**, Alston & Bird)

# APPENDIX C

# SUMMARY DATA

**Table C-1**
**ESBR: Summary data concerning the total U.S. market, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

**Table C-2**
**ESBR: Summary data concerning the merchant U.S. market, 2014-16, January to March 2016, and January to March 2017**

* * * * * * *

**Table C-3**
**ESBR: Summary data concerning the total U.S. market, 2013-15, January to June 2015, and January to June 2016**

* * * * * * *

**Table C-4**
**ESBR: Summary data concerning the merchant U.S. market, 2013-15, January to June 2015, and January to June 2016**

* * * * * * *

# APPENDIX D

# NONSUBJECT COUNTRY PRICE DATA

One importer, ***, reported price data for Germany for products 1, 4, and 5.[1] Price data reported by these firms accounted for 93.3 percent of U.S. commercial shipments from Germany in 2016. These price items and accompanying data are comparable to those presented in tables V-3 to V-8. Price and quantity data for Germany are shown in tables D-1 to D-3 and in figures D-1 to D-3 (with domestic and subject sources).

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for ESBR imported from Germany were lower than prices for U.S.-produced product in eight instances and higher in 22 instances. In comparing nonsubject country pricing data with subject country pricing data, prices for ESBR imported from Germany were lower than prices for product imported from subject countries in 16 instances and higher in 58 instances. A summary of price differentials is presented in table D-4.

**Table D-1**

**ESBR: Weighted-average f.o.b. prices and quantities of imported product 1[1], by quarters, January 2014-March 2017**

* * * * * * *

**Table D-2**

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

* * * * * * *

**Table D-3**

**ESBR: Weighted-average f.o.b. prices and quantities of imported product 5[1], by quarters, January 2014-March 2017**

* * * * * * *

**Figure D-1**

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

* * * * * * *

[1] *** importers reported imports from China, and the one responding importer, ***, did not report imports from Germany for Product 2, 3, or 6.

**Figure D-2**

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

* * * * * * *

**Figure D-3**

**ESBR: Weighted-average f.o.b. prices and quantities of domestic and imported product 5[1], by quarters, January 2014-March 2017**

* * * * * * *

**Table D-4**

**ESBR: Summary of underselling/(overselling), by country, January 2014-March 2017**

| Comparison | Total number of comparisons | Nonsubject lower than the comparison source | | Nonsubject higher than the comparison source | |
|---|---|---|---|---|---|
| | | Number of quarters | Quantity (short tons) | Number of quarters | Quantity (short tons) |
| **Nonsubject vs United States:** | | | | | |
| Germany vs. United States | 30 | 8 | 1,681,342 | 22 | 4,115,157 |
| **Nonsubject vs subject countries:** | | | | | |
| Germany vs. Brazil | 17 | 1 | 304,181 | 16 | 2,328,619 |
| Germany vs. Korea | 27 | 3 | 511,626 | 24 | 4,758,412 |
| Germany vs. Mexico | 29 | 11 | 2,072,936 | 18 | 3,427,885 |
| Germany vs. Poland | 1 | 1 | 116,403 | 0 | 0 |

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

# APPENDIX E

# U.S. SHIPMENTS BY TYPE

**Table E-1**
**ESBR: U.S. producers' and U.S. importers' U.S. shipments, by type, 2016**

* * * * * * *