Tapered Roller Bearings from Korea

Investigation No. 731-TA-1380 (Preliminary)

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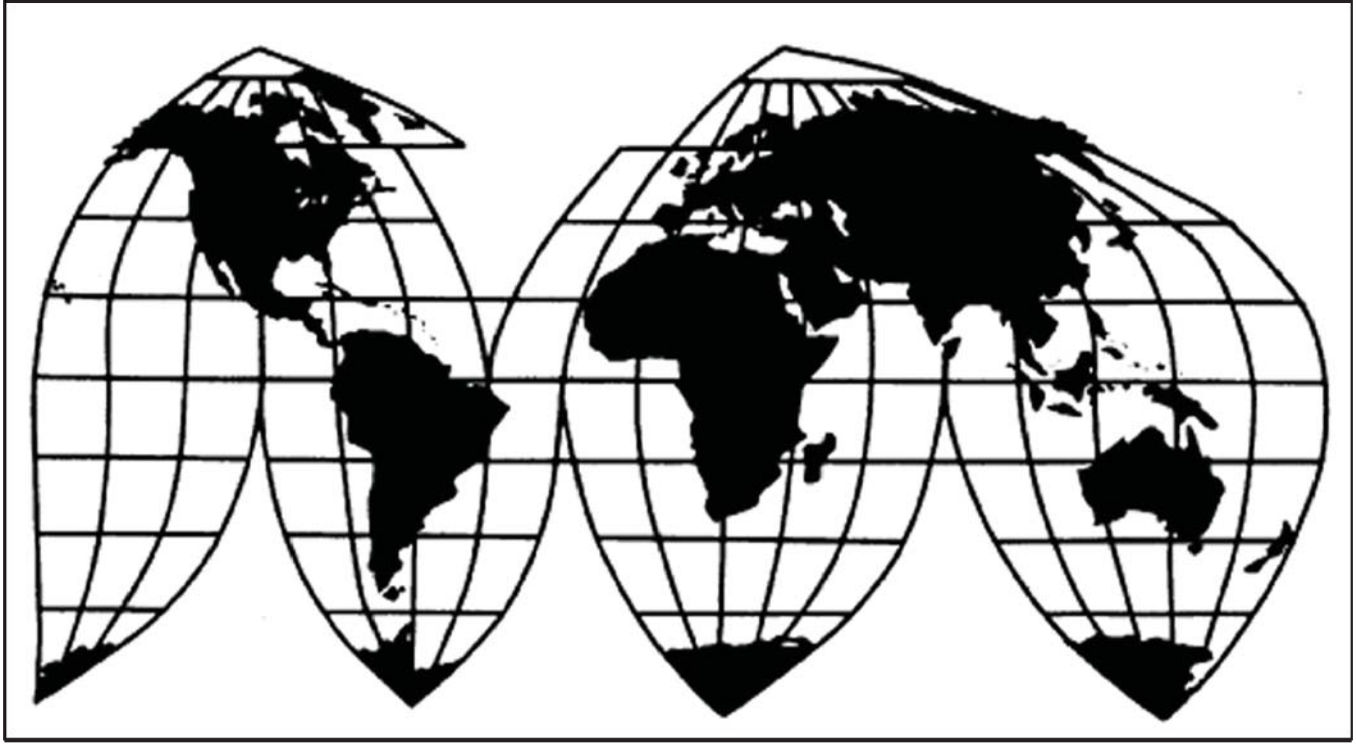
U.S. International Trade Commission



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U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1380 (Preliminary)

Tapered Roller Bearings from Korea

DETERMINATION

On the basis of the record[1] developed in the subject investigation, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of tapered roller bearings from Korea, provided for in subheadings 8482.20, 8482.91, and 8482.99 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value ("LTFV").[2]

COMMENCEMENT OF FINAL PHASE INVESTIGATION

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

[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] Commissioner Meredith M. Broadbent dissenting.

BACKGROUND

On June 28, 2017, The Timken Company, North Canton, Ohio, filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured by reason of LTFV imports of tapered roller bearings from Korea. Accordingly, effective June 28, 2017, the Commission, pursuant to section 733(a) of the Act (19 U.S.C. 1673b(a)), instituted antidumping duty investigation No. 731-TA-1380 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of July 5, 2017 (82 FR 31067). The conference was held in Washington, DC, on July 19, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the preliminary phase of this investigation, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of tapered roller bearings ("TRBs") from Korea that are allegedly sold in the United States at less than fair value.[1]

I. The Legal Standard for Preliminary Determinations

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

II. Background

Parties to the investigation. The Timken Company ("Timken"), a U.S. producer of tapered roller bearings ("TRBs"), filed the petition in this investigation on June 28, 2017. Timken appeared at the staff conference and submitted a postconference brief.

A number of respondent entities participated in this investigation. Bearing Art Corporation ("Bearing Art"), a producer of subject merchandise, and its affiliated U.S. importer Iljin USA Corporation (collectively "Iljin") participated in the staff conference and submitted a postconference brief. Schaeffler Korea Corporation ("Schaeffler Korea"), a producer of subject merchandise, and its affiliated U.S. importer Schaeffler Group U.S.A., Inc. (collectively "Schaeffler")(together with Iljin, the "respondents") also participated in the staff conference and submitted a postconference brief.

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[1] Commissioner Broadbent determines that there is no reasonable indication that an industry in the United States is materially injured or threatened with injury by reason of subject imports. *See* Dissenting Views of Commissioner Meredith M. Broadbent. Commissioner Broadbent joins sections I through VI.B of this opinion.

[2] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

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

Data Coverage. U.S industry data are generally based on the questionnaire responses of five firms that accounted for the vast majority of U.S. production of TRBs in 2016.[4] U.S. import data are based on adjusted official Commerce statistics and the questionnaire responses of 17 firms, which account for 79.4 percent of U.S. imports of subject merchandise from Korea and 51.4 percent of total U.S. imports in 2016, based on value.[5] Foreign industry data are based on the questionnaire responses of two firms whose exports accounted for virtually all subject imports during 2016 and approximately *** percent of overall TRB production in Korea.[6]

III. Domestic Like Product

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

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[10] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the

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[4] Confidential Report, Memorandum INV-PP- 108 (August 7, 2017)("CR") at I-5; Public Report, *Tapered Roller Bearings from Korea*, Inv. No. 731-TA-1380 (Preliminary), USITC Pub. 4721 (August 2017) ("PR") at I-4. We provide in Section VI.B of this opinion a further discussion regarding the data on which we relied in our analysis of reasonable indication of material injury.

[5] CR at I-5, n.8; PR at I-4, n.8.

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

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

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

facts of a particular investigation.[11] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[12] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value,[13] the Commission determines what domestic product is like the imported articles Commerce has identified.[14] The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[15]

In its notice of initiation, Commerce defined the imported merchandise within the scope of this investigation as:

> . . . certain tapered roller bearings. The scope covers all tapered roller bearings with a nominal outside cup diameter of eight inches and under, regardless of type of steel used to produce the bearing, whether of inch or metric size, and whether the tapered roller bearing is a thrust bearing or not. Certain tapered roller bearings include: finished cup and cone assemblies entering as a set, finished cone assemblies entering separately, and finished parts (cups, cones, and tapered rollers). Certain tapered roller bearings are sold individually as a set (cup and cone assembly), as a cone assembly, as a finished cup, or packaged as a kit with one or several tapered roller bearings, a seal, and grease. The scope of the investigation includes finished rollers and finished cones that have not been assembled with rollers and a cage. Certain tapered roller bearings can be a

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

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

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

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

[15] *See*, *e.g.*, *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington,* 747 F. Supp. at 748-49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, co-extensive with the scope).

single row or multiple rows (e.g., two- or four-row), and a cup can handle a single cone assembly or multiple cone assemblies.

Finished cups, cones, and rollers differ from unfinished cups, cones, and rollers in that they have undergone further processing after heat treatment, including, but not limited to, final machining, grinding, and/or polishing. Mere heat treatment of a cup, cone, or roller (without any further processing after heat treatment) does not render the cup, cone, or roller a finished part for the purpose of this investigation. Finished tapered roller bearing parts are understood to mean parts which, at the time of importation, are ready for assembly (if further assembly is required) and require no further finishing or fabrication, such as grinding, lathing, machining, polishing, heat treatment, etc. Finished parts may require grease, bolting, and/or pressing as part of final assembly, and the requirement that these processes be performed, subsequent to importation, does not remove an otherwise finished tapered roller bearing from the scope.

Tapered roller bearings that have a nominal outer cup diameter of eight inches and under that may be used in wheel hub units, rail bearings, or other housed bearings, but entered separately, are included in the scope to the same extent as described above. All tapered roller bearings meeting the written description above, and not otherwise excluded, are included, regardless of coating.

Excluded from the scope of this investigation are: (1) unfinished parts of tapered roller bearings (cups, cones, and tapered rollers); (2) cages, whether finished or unfinished; (3) the non-tapered roller bearing components of subject kits (e.g., grease, seal); and (4) tapered roller bearing wheel hub units, rail bearings, and other housed tapered roller bearings (flange, take up cartridges, and hanger units incorporating tapered rollers).

Tapered roller bearings subject to this investigation are primarily classifiable under subheadings 8482.20.0040, 8482.20.0061, 8482.20.0070, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580 of the Harmonized Tariff Schedule of the United States ("HTSUS"). Parts may also enter under 8482.99.4500. While HTSUS subheadings are provided for convenience and for customs purposes, the written description of the subject merchandise is dispositive.[16]

TRBs are a type of antifriction bearing, which is a machine component that permits free motion between moving and fixed parts to minimize friction and wear. TRBs are used in

[16] *Certain Tapered Roller Bearings from the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*, 82 Fed. Reg. 34477 (July 25, 2017) (footnote omitted).

applications to counteract friction while simultaneously offering moderate speed and heavy load capacity.[17] TRBs are used extensively in the automotive industry, heavy machinery sector (especially construction and agricultural equipment), and general industrial sectors, and the primary use for TRBs across these industries are in transmissions and wheel applications.[18]

TRBs have four elements – an inner ring (the "cone"), an outer ring (the "cup"), tapered rollers that fit between the cone and cup, and a cage that aligns and spaces the rollers.[19] The cup is the largest part of the assembly with its inner surface tapered to conform to the angle of the roller assembly, and the numbers of rollers are determined by the end usage of the TRB.[20] The cage, rollers, and cone are joined together to form a cone assembly, which when joined with a cup forms a roller bearing set.[21] Sets, cone assemblies, and cups are specified by part numbers that are based on standardized industry designations.[22]

A. Arguments of the Parties

Timken argues that the Commission should define a single domestic like product that is coextensive with the scope of investigation, which excludes TRBs greater than eight inches in diameter. Respondents argue that the Commission should define a single domestic like product that includes TRBs of all diameter sizes.

1. Timken's Arguments

Physical Characteristics and Uses. Referencing the Commission's past investigations of TRBs, Timken argues that the Commission has consistently defined a single domestic like product of TRBs that is coextensive with the scope of investigations, even when faced with different scopes.[23] While acknowledging that TRBs of all diameter sizes share the same basic elements (a cup, cone, rollers, and cage) and have the same essential function (reduction of friction), Timken argues that an eight-inch diameter dividing line presents a clear physical difference between in-scope and out-of-scope TRBs.[24] Timken also emphasizes that the

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[17] CR at I-11-12; PR at I-8-9.

[18] CR at I-11-12; PR at I-8-9.

[19] CR at I-11-12; PR at I-8-9.

[20] CR at I-11-12; PR at I-8-9.

[21] CR at I-11-12; PR at I-8-9.

[22] CR at I-11-12; PR at I-8-9. Generally, part numbers will indicate traits such as outside and inside diameter, roller angle, and various interchange dimensions, but the internal geometries and tolerances may be different for the same part numbers across manufacturers. For a TRB to function properly, cups must be mated with corresponding assembled cones as indicated by part numbers. The two basic systems of standardization for TRBs are the Antifriction Bearing Manufacturers Association ("AFBMA"), which specifies dimensions in inches, and the International Standards Organization ("ISO"), which specifies dimensions in metric sizes. *Id*.

[23] Timken Postconference Br. at 10.

[24] Timken Postconference Br. at 13.

majority of TRBs between zero and eight inches in diameter ("small-diameter TRBs") are used in automotive and heavy truck applications, but that no TRBs greater than eight inches in diameter ("large-diameter TRBs") are used in these applications.[25]

Interchangeability. Timken notes that there is generally no interchangeability of TRBs of different sizes, whether small-diameter or large-diameter TRBs, but TRBs of the same part number by different manufacturers may be interchangeable.[26]

Manufacturing Facilities, Processes, and Employees. Timken argues that it produces the "vast majority" (*** percent by value and *** percent by volume) of its small-diameter TRBs at facilities solely dedicated to TRBs of this size range, and that it produces only a small amount of small-diameter TRBs at its facilities dedicated to large-diameter TRBs.[27] Citing responses to Commission questionnaires, Timken argues that its experience is consistent with that reported by other U.S. producers.[28]

Timken argues that small- and large-diameter TRBs are not made in common facilities because small-diameter TRBs are high-volume products made on continuous automated lines, whereas large-diameter TRBs are produced in smaller batches and with less automation.[29] Further, production machinery for small-diameter TRBs would not make large-diameter TRBs, and machines for large-diameter TRBs would not be suitable for producing large quantities of small-diameter TRBs.[30] Timken contends that the outer diameter of TRBs is a key parameter for the manufacturing equipment and that eight inches is a common dividing line for TRB production equipment.[31]

Channels of Distribution. Timken argues that while small- and large-diameter TRBs are both present in the original equipment manufacturer ("OEM") market and aftermarket, they have different concentrations in these respective markets. Small-diameter TRBs are focused in the OEM market for automotive and heavy trucks and large-diameter TRBs are focused in the industrial aftermarket.[32]

Customer and Producer Perceptions. Timken argues that customers and producers perceive small- and large-diameter TRBs to be distinct products and that an eight-inch dividing line is widely recognized in the TRBs industry.[33] It has provided materials that it argues support an eight-inch dividing line for TRBs, including (i) examples of grinding and finishing machinery for TRBs with diameters no larger than 200 millimeters (7.87 inches),[34] (ii) marketing for tools

[25] Timken Postconference Br. at 13; Conference Tr. at 31 (Ruel).
[26] Timken Postconference Br. at 14; Conference Tr. at 39 (Drake).
[27] Timken Postconference Br. at 14-15.
[28] Timken Postconference Br. at 15.
[29] Timken Postconference Br. at 15; Conference Tr. at 39-40 (Drake).
[30] Timken Postconference Br. at 15.
[31] Timken Postconference Br. at 15-16.
[32] Timken Postconference Br. at 16; Conference Tr. at 41 (Drake).
[33] Timken Postconference Br. at 16-17.
[34] Timken Postconference Br., Answer to Staff Questions at 3 and Exh. 2.

that may grease TRBs of sizes up to 200 millimeters in diameter,[35] and (iii) a product catalogue from NTN Bearing for "large bearings" that are primarily over 200 millimeters in diameter.[36]

Price. Timken notes that the vast majority of responding firms reported that small- and large-diameter TRBs are "sometimes" or "never" comparable with respect to price.[37] Timken explains that because large-diameter TRBs require more raw materials and are produced in smaller batches than small-diameter TRBs, large-diameter TRBs are necessarily higher priced than small-diameter TRBs.[38]

2. Respondents' Arguments

Physical Characteristics and Uses. Schaeffler argues that while TRBs of different sizes and configurations do not share identical physical characteristics, TRBs of all sizes nonetheless share the same basic elements (cups, cones, rolling elements, and cages) and functions (to reduce friction).[39] Citing testimony from Iljin at the staff conference, Schaeffler argues that TRBs of different sizes are the same product simply designed for different applications and that many manufacturers do not recognize an eight-inch dividing line for TRBs.[40]

Respondents argue that the Commission's previous investigations of TRBs confirm that TRBs are a continuum product without clear dividing lines based on size.[41] Respondents note that Timken itself has emphatically argued that TRBs are a continuum product without clear dividing lines in past TRB investigations and reviews.[42]

Interchangeability. While acknowledging that TRBs as a whole generally have limited interchangeability, Schaeffler argues that this lack of interchangeability is also true of TRBs within the groupings of small- and large-diameter TRBs advocated by Timken.[43]

Manufacturing Facilities, Processes, and Employees. Schaeffler argues that any TRB manufacturing facility would have adequate equipment and employees to produce TRBs of multiple sizes. It cites statements from witnesses for Timken in the *TRBs from China Third Review* that Timken's production facilities may produce a "variety of TRBs."[44]

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[35] Timken Postconference Br., Answer to Staff Questions at 4 and Exh. 6.

[36] Timken Postconference Br., Answer to Staff Questions at 4 and Exh. 6.

[37] Timken Postconference Br. at 17.

[38] Timken Postconference Br. at 17.

[39] Schaeffler Postconference Br. at 11.

[40] Schaeffler Postconference Br. at 12; Conference Tr. at 121 (Dix).

[41] Iljin Postconference Br. at 2; Schaeffler Postconference Br. at 7-8; *Tapered Roller Bearings from China*, Inv. No. 731-TA-344 (Third Review), USITC Pub. 4343 (Aug. 2012) at 6, 14 ("TRBs from China Third Review").

[42] Iljin Postconference Br. at 2 and Exh. 25; Schaeffler Postconference Br. at 8.

[43] Schaeffler Postconference Br. at 12-13.

[44] Schaeffler Postconference Br. at 14-15.

Channels of Distribution. Schaeffler argues that there are no clear dividing lines in channels of distribution for the TRBs industry as a whole because TRBs manufacturers produce all sizes of TRBs for multiple industries.[45]

Customer and Producer Perceptions. Schaeffler argues that customers perceive TRBs of all sizes as having the same basic elements and functions.[46] It contends that comments by a witness for Timken confirm that even Timken itself does not recognize a clear dividing line between small- and large-diameter TRBs, with this witness adopting a dividing line of 12 inches rather than eight inches to discuss sales of smaller TRBs.[47]

Price. Schaeffler argues that there is a continuum of price across TRBs of all sizes that lack clear dividing lines. Referencing the Commission's opinion in *TRBs from China Third Review*, Schaeffler argues that differences in complexity, tolerance, and precision may result in smaller TRBs having higher prices than larger TRBs.[48]

B. Analysis and Conclusion

For the reasons explained below, we define a single domestic like product consisting of TRBs of all diameter sizes, but not including wheel hub units, cages entering separately, or unfinished parts. In examining how to define the domestic like product for a product grouping when the scope of investigation does not encompass all products within the grouping, we focus on whether there are clear dividing lines between domestically produced products within the scope and products outside of it.[49]

Physical Characteristics and Uses. Every TRB is designed for a particular application, which results in TRBs of many different sizes and configurations that do not have the same exact physical characteristics or uses.[50] TRBs as a whole, however, generally share the same basic elements (*e.g.*, cups, cones, rolling elements, and cages) and the same basic function (to reduce friction).[51]

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[45] Schaeffler Postconference Br. at 13.

[46] Schaeffler Postconference Br. at 13.

[47] Schaeffler Postconference Br. at 14; Conference Tr. at 141 (Schuster).

[48] Schaeffler Postconference Br. at 15; *TRBs from China Third Review*, USITC Pub. 4343 at 13-14.

[49] *See, e.g.*, *Certain Aluminum Plate from South Africa*, Inv. No. 731-TA-1056 (Final), USITC Pub. 3734 (Nov. 2004) at 5 & n. 23; *Minivans from Japan*, Inv. No. 731-TA-522 (Final), USITC Pub. 2529 (July 1992) at 6. This is the same standard the Commission uses to ascertain whether it should define multiple domestic like products within a product grouping corresponding to the scope definition. *See, e.g., Carbon and Certain Alloy Steel Wire Rod from Belarus, Italy, Korea, Russia, South Africa, Spain, Turkey, Ukraine, United Arab Emirates, and the United Kingdom,* Inv. Nos. 701-TA-573-574 and 731-TA-1349-1358 (Preliminary), USITC Pub. 4693 at 11-12 (May 2017); *Certain Corrosion-Resistant Steel Products from China*, *India, Italy, Korea, and Taiwan*, Inv. Nos. 701-TA-534-538 and 731-TA-1274-1278 (Preliminary), USITC Pub. 4547 at 9 (July 2015).

[50] Petition, Vol. I at 12-13

[51] Petition, Vol. I at 12-13.

The final application of a TRB dictates its diameter and size, so TRBs of different diameter sizes will necessarily have different uses.[52] Both small-diameter and large-diameter TRBs have uses in various heavy industrial sectors, albeit with different specific applications.[53] Timken and respondents generally agree that automotive applications constitute a prominent use for small-diameter TRBs, whereas large-diameter TRBs cannot be used in automotive applications.[54] In questionnaire responses, a majority of market participants reported that small-diameter and large-diameter TRBs are "somewhat" or "not at all" similar with respect to physical characteristics and uses.[55]

Interchangeability. The vast majority of market participants reported that small-diameter and large-diameter TRBs are "not at all" interchangeable.[56] However, such lack of interchangeability is true of any TRBs with different sizes and configurations, including small-diameter TRBs of different dimensions, a point conceded by Timken.[57]

Manufacturing Facilities, Production Processes, and Employees. Timken reports that while its facilities dedicated to manufacturing small-diameter TRBs cannot manufacture large-diameter TRBs, it produces *** percent by value (*** percent by volume) of its small-diameter TRBs at facilities making large-diameter TRBs.[58] All five U.S. producers reported that they did not produce small- and large-diameter TRBs on the same equipment and with the same employees.[59] U.S. producers Timken and NTN-Bower reported producing small- and large-diameters, U.S. producers Koyo Bearing North America LLC ("Koyo") and NSK Ltd. ("NSK") reported producing *** small-diameter TRBs, and U.S. producer Amsted Rail Company, Inc. reported producing *** large-diameter TRBs that have been further manufactured (*e.g*., out-of-scope railroad bearings).[60] The vast majority of market participants reported that that manufacturing processes for small-diameter and large-diameter TRBs are "somewhat" or "not at all" similar.[61]

Channels of Distribution. The vast majority of market participants reported that small-diameter and large-diameter TRBs "somewhat" or "mostly" share channels of distribution.[62] U.S. producers reported shipping the vast majority of all TRB shipments (*e.g*., small-diameter and large-diameter) to end users.[63] End users for small-diameter TRBs appear to be

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[52] CR at I-11-12; PR at I-8-9.

[53] Timken Postconference Br. at 13; Conference Tr, at 131-132 (Dix and Schuster).

[54] Timken Postconference Br. at 13; Conference Tr, at 131-132 (Dix and Schuster).

[55] CR/PR at Table I-1.

[56] CR/PR at Table I-1.

[57] Conference Tr. at 39 (Drake).

[58] Timken Postconference Br. at 14-15.

[59] CR at I-16-17; PR at I-11-12. It is unclear whether NTN-Bower produces small- and large-diameter TRBs at the same manufacturing facilities.

[60] CR at I-17; PR at I-12.

[61] CR/PR at Table I-1.

[62] CR/PR at Table I-1. A majority of market participants reported small- and large-diameter TRBs are only "somewhat" comparable.

[63] CR at I-17; PR at I-12; CR/PR at Table II-1.

concentrated in the automotive market.[64] Both small-diameter and large-diameter TRBs are, however, shipped to end users in other markets with wheel and transmission applications, such as the heavy equipment and industrial sectors.[65]

Producer and Customer Perceptions. Record evidence provides some support that producers and customers perceive distinctions between smaller and larger TRBs. Nevertheless, the record does not indicate that producers and customers perceive an eight-inch diameter as a clear dividing line between smaller and larger TRBs. Witnesses for Timken described sales of TRBs in diameters of "zero to 12 inches" when discussing Timken's sales of smaller TRBs.[66] Timken submitted samples of TRB-related equipment (*e.g.*, a bearing packer) catered to TRBs of diameters of no greater than 200 millimeters (7.87 inches).[67] Timken also, however, submitted examples of grinders and finishing equipment compatible with TRBs across an eight-inch dividing line, and Timken submitted a catalogue of "large TRBs" showing numerous models with possible diameters that cross an eight-inch dividing line.[68]

Price. The vast majority of market participants reported that small-diameter and large-diameter TRBs were "somewhat" or "not at all" comparable with respect to price.[69] Raw materials account for *** of the price of TRBs, and because large-diameter TRBs necessarily require more raw materials than small-diameter TRBs, large-diameter TRBs would normally be higher priced than small-diameter TRBs.[70] The Commission has noted in past investigations, however, that TRBs also vary in price based on an individual model's degree of complexity, tolerance, and level of precision, such that a highly-precise small-diameter TRB may be higher priced than a low-precision large-diameter TRB.[71]

Conclusion. TRBs encompass models with diameters ranging from only a few millimeters to several meters,[72] and the record of this preliminary phase investigation shows some differences in production facilities, uses, price, and producer and customer perceptions between TRBs of smaller and larger diameters. Notwithstanding such differences, the record of this preliminary phase investigation indicates that there is no clear dividing line between small-

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[64] CR at I-12; PR at I-9.

[65] CR at I-12; PR at I-9.

[66] Conference Tr. at 53 (Coughlin). Timken's witness acknowledged that this breakdown differed from the scope of investigation and indicated that Timken's sales records may be organized with a 12-inch diameter dividing line.

[67] Timken Postconference Br., Answer to Staff Questions 2, Exhs. 2 & 5.

[68] Timken Postconference Br., Answer to Staff Questions 2, Exh. 2 (showing various models of TRB grinders, some models of which may grind TRBs with diameters between 150 and 300 millimeters), Exh. 3 (showing examples of finishing equipment designed for TRBs of diameters between 180 millimeters and 320 millimeters), and Exh. 6 (NTN's "Large Bearing Catalogue" showing the minimum and maximum diameters for various TRB models, with some models indicating possible diameters ranging below and above 200 millimeters).

[69] CR/PR at Table I-1.

[70] CR at V-1-2; PR at V-1-2.

[71] *TRBs from China Third Review*, USITC Pub. 4343, at 13.

[72] CR at I-11; PR at I-9.

and large-diameter TRBs. A non-trivial portion of the value of Timken's production of small-diameter TRBs is produced at the same facilities as large-diameter TRBs. Both small- and large-diameter TRBs are used in the heavy machinery and industrial markets, albeit with different applications, and both small- and large-diameter TRBs share similar channels of distribution. While small- and large-diameter TRBs are not interchangeable with each other, this is also true of small-diameter TRBs of different sizes and configurations.

Moreover, even to the extent that there may be a dividing line between smaller- and larger-diameter TRBs, it is not clear that this delineation is at the eight inch mark. A catalogue of "large" TRB models provided by Timken has numerous examples of models whose possible diameters range above and below eight inches, and examples of TRB grinders and finishing equipment Timken provided also include examples of equipment compatible with TRBs of diameters across an eight-inch dividing line. We have stated in past investigations and reviews of TRBs, albeit ones in which the scope did not contain size limitations, that "if *** were to make distinctions based on individual sizes, specifications, or uses of bearings, it is unclear what dividing line would be appropriate,"[73] and we find that the record of this preliminary phase investigation supports a similar conclusion. Accordingly, we define the domestic like product to include TRBs of all diameter sizes but not including wheel hub units,[74] cages, or unfinished parts.

We invite parties in their comments on the Commission's draft questionnaires to identify whether additional products should be included in the domestic like product. If they do so, they should provide a particularized discussion of why they perceive there is not a clear dividing line between such domestically produced products and articles within the domestic like product.[75]

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[73] *TRBs from China Third Review*, USITC Pub. 4343, at 13; *TRBs from Hungary, China and Romania*, USITC Pub. 1983 at 6-7; *TRBs from Italy and Yugoslavia*, USITC Pub. 1999 at 8-9.

[74] Timken also argues, and respondents do not contest, that the Commission should define the domestic like product not to include wheel hub units. Unlike un-housed TRBs, wheel hub units (and other housed bearings) undergo additional manufacturing to incorporate new elements, and these additional elements allow wheel hub units to have functions that other bearings lack. CR at I-16, n.27; PR at I-11, n.27. Wheel hub units are further designed for distinct applications from unhoused TRBs, with the result that TRBs cannot be used in the same applications as wheel hub units. Conference Tr. at 39 (Drake). A majority of market participants reported that further processed TRBs, including wheel hub units, and TRBs are "somewhat" or "not at all" comparable with respect to producer and customer perceptions. CR/PR at Table I-3. Finally, the vast majority of market participants reported that further processed TRBs, including wheel hub units, and TRBs are "somewhat" or "not at all" comparable with respect to price. CR/PR at Table I-3. In light of the foregoing and the lack of any contrary argument, we find the record of this preliminary phase investigation does not support including wheel hub units in the domestic like product.

[75] *See* 19 C.F.R. § 207.20(b); *53-Foot Domestic Dry Containers from China,* Inv. Nos. 701-TA-514 and 731-TA-1250 (Final), USITC Pub. 4537 at 7-8 (June 2015) (declining to consider domestic like product argument that was untimely raised).

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[76] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the domestic like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

Timken argues that the Commission should define the domestic industry to include all U.S. producers of the domestic like product, and neither Timken nor respondents argue that the Commission should exclude any U.S. producer of TRBs from the domestic industry.[77] The record indicates that no domestic producer is a related party.[78] Consequently, we define the domestic industry as all U.S. producers of the domestic like product.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product shall be deemed negligible if they account for less than three percent (or four percent in the case of a developing country in a countervailing duty investigation) 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.[79]

The statute further provides that subject imports from a single country which comprise less than 3 percent of such total 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.[80] In the case of countervailing duty investigations involving developing countries (as designated by the United States Trade Representative ("USTR")), the statute indicates that the negligibility limits are 4 percent and 9 percent, rather than 3 percent and 7 percent.[81]

The record indicates that subject imports of TRBs from Korea exceeded the requisite negligibility thresholds. Based on official Commerce statistics, subject imports of TRBs from

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[76] 19 U.S.C. § 1677(4)(A).

[77] Timken Postconference Br. at 22; Iljin Postconference Br. at 6; Conference Tr. at 144 (Schutzman).

[78] U.S. producer NSK is affiliated with NSK Korea Co. Ltd. ("NSK Korea"), a foreign producer of in-scope merchandise. CR/PR at Table III-2. ***, however, reported that ***. *** U.S. producer Questionnaire, at Questions I-5 and I-6. Accordingly, *** is not a related party.

[79] 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)).

[80] 19 U.S.C. § 1677(24)(A)(ii).

[81] 19 U.S.C. § 1677(24)(B).

Korea accounted for 16.3 percent of total imports of in-scope TRBs by value (13.2 percent by quantity) from June 2016 through May 2017, the 12-month period immediately preceding the filing of the petition.[82] Consequently, we find that subject imports from Korea are not negligible.

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

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[83] 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.[84] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[85] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[86] 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."[87]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[88] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[89] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the

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[82] CR at IV-7; PR at IV-6. The percentage of subject imports of TRBs from Korea as a percentage of imports of all TRBs is also above the negligibility threshold. *See* CR/PR at Table C-2.

[83] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[84] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[85] 19 U.S.C. § 1677(7)(A).

[86] 19 U.S.C. § 1677(7)(C)(iii).

[87] 19 U.S.C. § 1677(7)(C)(iii).

[88] 19 U.S.C. §§ 1671b(a), 1673b(a).

[89] *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).

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.[90]

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.[91] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[92] Nor does the

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

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

[92] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor* , 266 F.3d at 1345. ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from*

(*continued*...)

"by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[93] It is clear that the existence of injury caused by other factors does not compel a negative determination.[94]

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."[95] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[96]

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[97] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal* litigation.

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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.").

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

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

[95] *Mittal*, 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*, 792 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[96] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal*, 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.").

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

Mittal 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.[98] 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* 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.[99]

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.[100] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[101]

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

TRBs are a type of antifriction bearing that permits free motion between moving and fixed parts to minimize friction and wear. TRBs are incorporated into transmission and wheel applications and are used extensively in the automotive industry, heavy machinery sector

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[98] *Mittal*, 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).

[99] 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.

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

[101] *Mittal*, 542 F.3d at 873; *Nippon*, 458 F.3d at 1350, *citing U.S. Steel*, 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.").

(primarily in agricultural and construction equipment), and the general industrial sector.[102] The vast majority of responding firms indicated that there are no substitutes for TRBs and that other types of bearings may not be substituted for TRBs once an application has been engineered.[103] TRBs generally account for a small share of the cost of end-use products, such as autos or tractors, in which they are used.[104]

U.S. demand for TRBs depends on the demand for U.S.-produced downstream products.[105] Because TRBs are used in applications in a variety of markets, the vast majority of respondents indicated that the market for TRBs was not subject to business cycles or conditions of competition.[106] Demand for TRBs may fluctuate depending on trends in individual markets where TRBs are used, such as automotive, agriculture, and heavy equipment.[107] While parties have argued that declining demand in some markets (*e.g.*, agricultural and industrial) and increases in other markets (*e.g.*, automotive) affected U.S. demand for TRBs during the January 2014 through March 2017 period of investigation ("POI"), the record is inconclusive. Available information indicates that U.S. vehicle sales fluctuated but declined during the POI, and that U.S. farming machinery, equipment manufacturing, and construction machinery similarly experienced some fluctuations but declined overall during the POI.[108] Most U.S. producers and a plurality of importers reported that U.S. demand for TRBs fluctuated over the POI.[109] We intend further to examine demand trends and U.S. shipments of TRBs for use in principal end-use sectors in any final phase of this investigation.

Apparent U.S. consumption[110] by value[111] of all TRBs declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and apparent U.S. consumption was lower in January to March 2017 ("interim 2017") ($***) than in January to March 2016 ("interim 2016") ($***).[112]

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[102] CR at II-1; PR at II-1.

[103] CR at II-11; PR at II-8-9.

[104] CR at II-7; PR at II-5.

[105] CR at II-7; PR at II-5.

[106] CR at II-8; PR at II-5.

[107] CR at II-10; PR at II-8.

[108] CR/PR at Figures II-2 and II-3.

[109] CR/PR at Table II-3.

[110] In the preliminary phase of this investigation, we collected information regarding TRBs in two groupings: (i) domestically produced and imported TRBs corresponding to the scope of investigation (summarized at CR/PR at Table C-1) and (ii) domestically produced TRBs and imported TRBs, other than subject merchandise, of all types and sizes, including large-diameter TRBs and further manufactured bearings such as wheel hub units (summarized at CR/PR at Table C-2) (data for subject imports are the same in both data sets). U.S. industry data in Table C-2 may be overstated due to the inclusion of further manufactured products such as wheel hub units. Because we have defined the domestic like product to include TRBs of all diameter sizes, we find that the data summarized in Table C-2 provide the most accurate information in the record concerning the U.S. market for the domestic like product.

[111] We rely primarily on value-based indicators as the best measure for the product in an investigation such as this, which involves a large grouping of items differing greatly in size, applications, and price. *See, e.g., Diamond Sawblades and Parts Thereof from China*, Inv. No. 731-TA-1092 (Review), USITC Pub. 4559 at 12 n.64 (Sept. 2015). We observe that both Timken and respondents agreed that

(*continued*...)

2. Supply Conditions

The domestic industry, subject imports, and imports other than subject imports all supplied the U.S. market over the POI. Global production of TRBs is dominated by large multinational firms with manufacturing operations in numerous countries, including NSK, Schaeffler, and Timken.[113]

The domestic industry accounted for the largest market share by value over the POI, with a market share of *** percent in 2014, *** percent in 2015, and *** percent in 2016, and the domestic industry's market share by value was lower in interim 2017 (*** percent) than in interim 2016 (*** percent).[114] The domestic industry's annual capacity by quantity decreased slightly over the POI, from *** bearings in 2014 and 2015 to *** in 2016, but capacity was slightly higher in interim 2017 (*** bearings) than in interim 2016 (*** bearings).[115] The domestic industry's annual capacity remained below apparent U.S. consumption throughout the POI.[116]

Timken, the *** U.S. producer, has reported supplying TRBs to all market segments.[117] Respondents, however, contend that Timken "abandoned" the U.S. automotive segment of the TRBs market in 2008 with its "Fix or Exit" strategy and compelled purchasers in this segment towards greater supply diversification.[118] Timken responds that this strategy was not an abandonment of the automotive market but an effort to create sustainable pricing.[119] Timken has also provided correspondence with automotive customers as evidence of its continued presence in this market since 2008.[120] As previously indicated, we intend to examine further U.S. shipments of TRBs for use in principal end-use sectors in any final phase of this investigation.

(…*continued*)
value-based indicators provided the best measure for TRBs. Conference Tr. at 57 (Drake) (discussing subject import volumes by value) and 116 (Dougan). We are mindful of limitations of using value rather than quantity measures, such as the difficulty in determining whether changes in value are caused by changes in product mix or price. Therefore, we have also considered quantity data, based on bearings or bearing equivalents, where appropriate.

[112] CR/PR at Table C-2. Apparent U.S. consumption by quantity was lower at the end of the POI than the beginning, being *** bearings or bearing equivalents in 2014, *** in 2015, and *** in 2016, and was higher in interim 2017 (***) than in interim 2016 (***). *Id*.

[113] CR at VII-9-10; PR at VII-6 (noting that six companies account for 60 percent of global bearing production).

[114] CR/PR at Table C-2. By quantity, the domestic industry accounted for the second largest market share (after nonsubject imports), at *** percent in 2014, *** percent in 2015, and *** percent in 2016, and the domestic industry's market share was lower in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*.

[115] CR/PR at Table C-2.

[116] CR/PR at Table C-2.

[117] Conference Tr. at 54-55 (Ruel and Fracassa).

[118] Iljin Postconference Br. at 10-13; Schaeffler Postconference Br. at 20.

[119] Timken Postconference Br. at 4.

[120] Timken Postconference Br. at 4 and Exh. 1.

Imports other than subject imports (including imports of TRBs from other sources and imports of out-of-scope TRBs from Korea) accounted for the second largest market share by value over the POI. Their market share by value was lower at the end of the POI than the beginning, increasing from *** percent in 2014 to *** percent in 2015 before declining to *** percent in 2016, and their market share by value was higher in interim 2017 (*** percent) than in interim 2016 (*** percent).[121] The largest sources for these imports during the POI were Japan and China, both of which respectively accounted for greater market share by value than subject imports.[122] TRBs from China of all sizes are currently subject to an antidumping duty order.[123]

Subject imports accounted for the third largest market share during the POI, with their market share increasing. Their market share, by value, was *** percent in 2014, *** percent in 2015, and *** percent in 2016, and subject import market share was higher in interim 2017 (*** percent than in interim 2016 (*** percent).[124]

3. Substitutability and Other Conditions

While TRBs as a whole generally share the same basic elements (e.g., cups, cones, rolling elements, and cages) and the same basic function (to reduce friction), every TRB is designed for a particular application and will have sizes and configurations tailored to that application.[125] Accordingly, TRBs with similar dimensions from different manufacturers may be interchangeable, but differences in internal geometries and tolerances between TRBs of similar dimensions may nonetheless limit interchangeability.[126] Available record evidence suggests that there is a moderate degree of substitutability between domestically produced TRBs and subject TRBs from Korea.[127]

All responding U.S. producers reported that domestically produced TRBs and subject imports are "frequently" interchangeable, while eight of 10 U.S. importers reported that domestically produced TRBs and subject imports are "always" or "frequently"

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[121] CR/PR at Table C-2. Imports other than subject imports accounted for the largest market share by quantity and finished the POI lower than at the beginning, at *** percent in 2014, *** percent in 2015, and *** percent in 2016. Their market share was higher in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*.

[122] CR/PR at Table C-2. By quantity, imports from China and Japan were the largest source of nonsubject imports as well. *Id*.

[123] CR at I-6-7; PR at I-5.

[124] CR at Table C-2. By quantity as well, subject imports accounted for the third largest market share though increasing during the POI, at *** percent in 2014, *** percent in 2015, and *** percent in 2016, and subject import market share was higher in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*.

[125] CR at II-11; PR at II-9.

[126] CR at I-11-12; PR at I-8-9.

[127] CR at II-11; PR at II-9.

interchangeable.[128] All responding U.S. producers reported that non-price differences are "frequently" or "sometimes" significant in comparisons of the domestically produced TRBs and subject imports.[129] U.S. importers provided mixed responses as to the significance of non-price differences. Four importers responded that non-price differences were "always" or "frequently" significant in comparisons of domestically produced TRBs and subject imports, while six importers reported that such differences were "sometimes" or "never" significant.[130] We find that price is of moderate importance in purchasing decisions for TRBs.

While some purchasers require a certification process for provision of TRBs, which may require 18 to 24 months and cost $200,000 to $300,000, the parties dispute the degree to which such certifications may impact competition between subject imports and domestically produced TRBs.[131] Additionally, both U.S. producers and U.S. importers reported a prevalence of long-term contracts for TRBs.[132] Responding firms indicate that such contracts generally have terms ranging from two to five years and may have terms allowing for price renegotiation or meet-or-release provisions regarding quantity and price.[133] TRBs are manufactured from steel scrap.[134] Raw materials, as a percentage of cost of goods sold, ranged from *** percent to *** percent during the POI.[135] Available information indicate that raw material prices declined *** percent over the POI, and two U.S. producers and four U.S. importers also reported that the price of raw materials decreased over the POI.[136] Timken and respondents both note that TRB contracts often contain clauses that automatically adjust prices in response to changes in raw material costs.[137] [138]

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[139]

Subject import volumes increased from $38.4 million in 2014 to $52.4 million in 2015 and $59.8 million in 2016, and subject import volumes were higher in interim 2017 ($17.3

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[128] CR/PR at Table II-4.
[129] CR/PR at Table II-5.
[130] CR/PR at Table II-5.
[131] CR at II-13; PR at II-10.
[132] CR/PR at Table V-2.
[133] CR at V-4; PR at V-2.
[134] CR at V-1; PR at V-1.
[135] Calculated from CR/PR at Table C-2.
[136] CR at V-2-3; PR at V-1. However, two U.S. producers and six U.S. importers reported that raw material prices fluctuated over the POI. *Id*.
[137] CR at V-2; PR at V-1.
[138] Commissioner Broadbent does not join the remainder of this opinion. *See* her Dissenting Views.
[139] 19 U.S.C. § 1677(7)(C)(i).

million) than in interim 2016 ($11.5 million).[140] The increase in subject imports occurred even while apparent U.S. consumption declined, resulting in increased market share for subject imports during the POI. Subject imports increased their share of apparent U.S. consumption by value from *** percent in 2014 to *** percent in 2015 and *** percent in 2016, and subject import market share of apparent U.S. consumption was higher in interim 2017 (*** percent) than in interim 2016 (*** percent).[141]

For purposes of this preliminary determination, we find that the increase in volume of subject imports from Korea is significant absolutely and relative to consumption in the United States.

D. Price Effects of Subject Imports

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

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
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> (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.[142]

As stated above, the current record indicates a moderate degree of substitutability between subject imports and the domestically produced product when they are produced to the same dimensions and specifications. Available information also indicates that price is of moderate importance in purchasing decisions.

In the preliminary phase of this investigation, the Commission requested that U.S. producers and importers provide quarterly data for the total quantity and free on board value for six TRB products shipped to unrelated U.S. customers between January 2014 and March 2017.[143] One U.S. producer (***) and one importer (***) submitted usable pricing data on

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[140] CR/PR at Table C-2. By quantity as well, subject import volumes increased over the POI. Subject import volumes were 5.7 million bearings or bearing equivalents in 2014, 8.0 million in 2015, and 10.7 million in 2016, and were higher in interim 2017 (2.9 million) than in interim 2016 (2.2 million). *Id*.

[141] CR/PR at Table C-2. By quantity, subject import market share increased during the POI from *** percent in 2014 to *** percent in 2015 and *** percent in 2016, and subject import market share was higher in interim 2017 (*** percent) than in interim 2016 (*** percent.). *Id*.

[142] 19 U.S.C. § 1677(7)(C)(ii).

[143] The pricing products were: **Product 1.**—13623X – TRB Cup (single row, outer diameter ("OD") 2.717 inches, 0.727 inch width); **Product 2.**—55437 – TRB Cup (single row, OD 4.375 inches, width 0.813 inch); **Product 3.**—39520 – TRB Cup (single row, OD 4.4375 inches, width 0.9375 inch); **Product 4.**—13687 – TRB Cone Assemblies (single row, 1.50 inch bore); **Product 5.**—55200C – TRB Cone Assemblies

(*continued*...)

sales of the requested products, although neither firm reported pricing for all products for all quarters.[144]

The pricing data show that subject imports undersold the domestic like product in all 26 quarterly price comparisons (involving *** units) at underselling margins that ranged from *** percent to *** percent and averaged *** percent.[145] In light of the underselling evidenced by the pricing data, we find underselling to be significant for purposes of this preliminary determination.[146]

Pricing data indicate price declines for five of the six the domestically produced pricing products during the POI. For products 2 and 5, the two products with reported pricing data for subject imports, prices for the domestically produced product declined by *** percent and *** percent, respectively.[147] For the remaining products, prices for the domestic product declined *** percent for product 3, *** percent for product 4, and *** percent for product 6; prices for product 1 increased by *** percent.[148] While available pricing data indicate declining prices for domestically produced TRBs and subject imports, other market factors, such as decreases in apparent U.S. consumption and the substantial decreases in raw material costs discussed above, likely contributed to observed price decreases, particularly because prices for several individual domestically produced pricing products declined in the same general range regardless of whether there was subject import competition.[149] As a result, the available record is insufficient to establish whether price decreases were a function of subject imports as opposed to these other observed factors, and we do not find that subject imports from Korea had the effect of depressing prices of the domestic like product to a significant degree.

We also considered whether subject imports prevented increases in prices of the domestic like product that otherwise would have occurred to a significant degree. During the POI, the domestic industry's COGS to net sales ratio fluctuated within a narrow band, increasing

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(…*continued*)
(single row, 2 inch bore, width 1.0594 inch); and **Product 6.**—HM212049 – TRB Cone Assemblies (single row, 2.650 inch bore). CR at V-5; PR at V-3.

[144] CR at V-6, PR at V-3. The pricing data accounted for approximately 0.8 percent of the value of the domestic industry's U.S. shipments and 11.1 percent of the value of U.S. shipments of subject imports over the POI. There were no reported data for subject imports from Korea for pricing products 1, 3, 4, and 6. CR at V-6; PR at V-4. TRBs encompass many distinct models with a large variety of dimensions and specifications, and we consequently would expect relatively limited product coverage for the pricing products. Nonetheless, in their comments on the draft questionnaires for any final phase of this investigation, we invite parties to propose pricing products that may provide broader product coverage and additional price comparisons between domestically produced TRBs and subject imports from Korea.

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

[146] Two of six purchasers that responded to the lost sales lost revenue survey reported purchasing subject imports rather than domestically produced TRBs and that subject imports were lower priced than the domestic product. Neither, however, reported that price was the primary reason for purchasing subject imports. CR/PR at Table V-13.

[147] CR/PR at Table V-9. Prices for the subject imports also declined. *Id.*

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

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

from *** percent in 2014 to *** percent in 2015, and then declining to *** percent in 2016, the same level as in 2014, and the domestic industry's COGS to net sales ratio was lower in interim 2017 (*** percent) than in interim 2016 (*** percent).[150] During this time, however, apparent U.S. consumption and raw material costs both decreased.[151] Because price increases were unlikely in light of apparent U.S. consumption trends and falling costs, and the record does not indicate that the domestic industry was suffering a cost-price squeeze during the POI, we do not find that subject imports prevented price increases that otherwise would have occurred to a significant degree.

Given the underselling of subject imports and increase in subject import U.S. shipments during a period of declining apparent consumption, coupled with the moderate substitutability between subject imports and domestically produced TRBs and the moderate importance of price in purchasing decisions, we cannot conclude on the record of this preliminary phase investigation that the subject imports did not increase their market share during the POI because of their low prices. We will examine further in any final phase of this investigation the nature of price competition between subject imports and the domestic like product.

E. Impact of the Subject Imports[152]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[153]

The domestic industry's output, U.S. shipments, and revenues declined by similar amounts as declines in apparent U.S. consumption over the POI. The domestic industry's financial performance also experienced declines.

As discussed above, the domestic industry's market share by value fluctuated during the POI, declining from *** percent in 2014 to *** percent in 2015 and increasing to *** percent in

[150] CR/PR at Table C-2.

[151] CR/PR at Table C-2. Unit COGS also fluctuated but finished the POI lower, fluctuating from $*** in 2014 to $*** in 2015 to $*** in 2016, and was lower in interim 2017 ($***) than in interim 2016 ($***). *Id*.

[152] Commerce initiated its investigation based on estimated dumping margins ranging from 46.28 percent to 132.24 percent for subject imports from Korea. *Certain Tapered Roller Bearings from the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*, 82 Fed. Reg. 34477 (July 25, 2017).

[153] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

2016, a higher level than in 2014.[154] The domestic industry's capacity declined slightly over the POI.[155] The domestic industry's production,[156] capacity utilization,[157] U.S. shipments,[158] and inventories[159] each declined during the POI.

Most employment-related indicators for the domestic industry showed declines as well. The number of production-related workers ("PRWs"), total hours worked, and wages paid all declined during the POI, although there were increases in hourly wages and productivity.[160]

The domestic industry's financial indicators declined during the POI even while the industry remained profitable. Net sales,[161] gross profit,[162] operating income,[163] and net

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[154] CR/PR at Table C-2. The domestic industry's market share measured by value was lower in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*. By quantity, the domestic industry's market share was *** percent in 2014, *** percent in 2015, and *** percent in 2016, and the domestic industry's market share was lower in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*.

[155] The domestic industry's capacity was *** bearings or bearing equivalents in 2014 and 2015 and declined to *** in 2016, although capacity was higher in interim 2017 (***) than in interim 2016 (***). CR/PR at Table C-2.

[156] The domestic industry's production decreased from *** bearings or bearing equivalents in 2014 to *** in 2015 and *** in 2016, and production was lower in interim 2017 (***) than in interim 2016 (***). CR/PR at Table C-2.

[157] The domestic industry's capacity utilization was *** percent in 2014, *** percent in 2015, and *** percent in 2016, and was lower in interim 2017 (*** percent) than in interim 2016 (*** percent). CR/PR at Table C-2.

[158] The domestic industry's total U.S. shipments by value were $*** in 2014, $*** in 2015, and $*** in 2016, and U.S. shipments were lower in interim 2017 ($***) than in interim 2016 ($***). CR/PR at Table C-2. By quantity, the domestic industry's U.S. shipments were *** bearings or bearing equivalents in 2014, *** in 2015, and *** in 2016, and were lower in interim 2017 (***) than in interim 2016 (***). *Id*. Export shipments by value of domestic producers were $*** in 2014, $*** in 2015, and $*** in 2016, and were lower in interim 2017 ($***) than in interim 2016 ($***). *Id*. By quantity, export shipments were *** bearings or bearing equivalents in 2014, *** in 2015, and *** in 2016, and were higher in interim 2017 (***) than in interim 2016 (***). *Id*.

[159] Inventories decreased from *** bearings or bearing equivalents in 2014 to *** in 2015 and *** in 2016, although inventories were higher in interim 2017 (*** than in interim 2016 (***). *Id*. The domestic industry's ratio of inventories to total shipments also decreased, declining from *** in 2014 to *** in 2015 and *** in 2016, although the ratio was higher in interim 2017 (***) than in interim 2016 (***). *Id*.

[160] The domestic industry's PRWs decreased from *** in 2014 to *** in 2015 and *** in 2016, and PRWs were lower in interim 2017 (***) than in interim 2016 (***). Total hours worked declined from *** in 2014 to *** in 2015 and *** in 2016, and were lower in interim 2017 (***) than in interim 2016 (***). Wages paid declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and were higher in interim 2017 ($***) than in interim 2016 ($***). Hourly wages increased from $*** in 2014 to $*** in 2015 and $*** in 2016, and were higher in interim 2017 ($***) than in interim 2016 ($***). Productivity fluctuated but finished the POI higher than in the beginning, initially declining from *** bearings or bearing equivalents per hour in 2014 to *** in 2015 and then increasing to *** in 2016, and productivity was lower in interim 2017 (***) than in interim 2016 (***). CR/PR at Table C-2.

income[164] declined over the POI, although gross profits, operating income and net income remained positive. Operating income as a share of net sales fluctuated but finished the POI lower than in the beginning.[165] Domestic producers' capital expenditures and research and development expenses declined over the POI.[166] Domestic producers also reported negative effects on investment and on growth and development due to subject imports.[167]

Subject import volumes increased absolutely during the POI and subject imports also increased their U.S. market share, during a time of declining apparent U.S. consumption. The record also indicates that subject imports significantly undersold the domestic like product. As previously discussed, we cannot conclude that the increased market share of subject imports was not a function of this underselling; this is a matter we will explore further in the final phase investigation. For the same reason, we cannot conclude that the subject imports did not cause the domestic industry to lose sales and revenues it would otherwise have obtained; as previously stated, the domestic industry had declining shipments during the POI, which resulted in lower production, capacity utilization, sales, and revenues. Consequently, for purposes of this preliminary determination, we cannot conclude that the subject imports did not have a significant impact on the domestic industry.

We have considered whether there are other factors that may have had an impact on the domestic industry during the POI. Respondents argue that declines in Timken's shipments over the POI were the result of its reliance on the industrial sector, which has experienced declining demand relative to the automotive sector.[168] As previously noted, the current record

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(…*continued*)

[161] The domestic industry's total net sales by value declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and were lower in interim 2017 ($***) than in interim 2016 ($***). By quantity as well, the domestic industry's net sales declined from *** bearings or bearing equivalents in 2014 to *** in 2015 and *** in 2016, and were lower in interim 2017 (***) than in interim 2016 (***). CR/PR at Table C-2.

[162] The domestic industry's gross profit declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and was higher in interim 2017 ($***) than in interim 2016 ($***). CR/PR at Table C-2.

[163] The domestic industry's operating income decreased from $*** in 2014 to $*** in 2015 and $*** in 2016, and was higher in interim 2017 ($***) than in interim 2016 ($***). CR/PR at Table C-2.

[164] The domestic industry's net income was $*** in 2014, $*** in 2015, and $*** in 2016, and was higher in interim 2017 ($***) than in interim 2016 ($***). CR/PR at Table C-2.

[165] The domestic industry's operating income as a share of net sales increased from *** percent in 2014 to *** percent in 2015 before decreasing to *** percent in 2016, and was higher in interim 2017 (*** percent) than in interim 2016 (*** percent). CR/PR at Table C-2.

[166] Capital expenditures declined from $*** in 2014 to $*** in 2015 and $*** in 2016, and were higher in interim 2017 ($***) than in interim 2016 ($***). CR/PR at Table C-2. Research and development expenses were $*** in 2014, $*** in 2015, and $*** in 2016, and were lower in interim 2017 ($***) than in interim 2016 ($***). Compiled from U.S. Producer Questionnaires.

[167] CR/PR at Table VI-7.

[168] Iljin Postconference Br. at 7-9; Schaeffler Postconference Br. at 17. Respondents also argue that increases in subject import volumes and shipments were a result of U.S. automotive purchasers seeking to diversify their supply, not competition between domestically produced TRBs and subject imports. Iljin Postconference Br. at 10-15; Schaeffler Postconference Br. at 20.

does not provide complete data as to declines in individual market segments and what role any such declines may have played in the domestic industry's U.S. shipments and market share,[169] and we intend to examine this issue further in any final phase of this investigation.[170]

We have also considered the role of imports other than subject imports. Such imports' share of apparent U.S. consumption by value fluctuated during the POI but finished lower, initially increasing from *** percent in 2014 to *** percent in 2015 before decreasing to *** percent in 2016, and was slightly higher in interim 2017 (*** percent) than in interim 2016 (*** percent).[171] By value, market share for imports other than subject imports decreased by a similar level to the increase in market share for subject imports.[172] Further, while available pricing data indicate that nonsubject imports undersold domestically produced TRBs, no pricing comparisons are available between nonsubject imports and subject imports.[173] Accordingly, we cannot conclude from the available evidence that nonsubject imports explain the domestic industry's declining shipments and revenues during the POI. In any final phase investigation, we intend to examine further the nature of competition between nonsubject imports, on the one hand, and subject imports and the domestic like product, on the other.

VII. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of TRBs from Korea that are allegedly sold at less than fair value.

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[169] CR at II-7-10; PR at II-5-8.

[170] Similarly, we intend to examine further in any final phase of this investigation whether Timken's "Fix or Exit" strategy prompted automotive purchasers to diversify their supply of TRBs.

[171] CR/PR at Table C-2. By quantity, these imports' market share was *** percent in 2014, *** percent in 2015, and *** percent in 2016, and was higher in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id*.

[172] We also note, however, that the market share by quantity for nonsubject imports from China increased over the POI, from *** percent in 2014 to *** percent in 2015 to *** percent in 2016, and was higher in interim 2017 (*** percent) than in interim 2016 (*** percent). These increases were greater than the increased market share by quantity for subject imports. CR/PR at Table C-2.

[173] CR/PR at Table D-4.

Dissenting Views of Commissioner Meredith M. Broadbent

Based on the record in the preliminary phase of this investigation, I find that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of tapered roller bearings ("TRBs") from Korea that are allegedly sold in the United States at less than fair value ("LTFV"). I join with and adopt as my own sections I-VI.B of the Views of the Commission.

My separate determination that there is no reasonable indication that a domestic industry is materially injured or threatened with material injury by reason of subject imports rests primarily upon the clear and convincing evidence in the record as a whole that supports findings of: (1) the lack of significant price-depressing or suppressing effects; (2) the stable market share of the domestic industry despite rising subject import volumes; (3) the industry's ability to maintain stable profit margins despite rising subject imports and falling demand; and (4) future increasing volumes of subject imports are not likely to cause material injury to the domestic industry.

I. Legal Standard for Preliminary Determinations

In preliminary phase investigations, I am required to determine whether there is a "reasonable indication" of material injury or a threat of material injury by reason of the subject imports.[1] In *American Lamb Co. v. United States*,[2] the Federal Circuit held that the "reasonable indication" standard does not mean that the Commission is to determine only whether there is a "possibility" of material injury.[3] Instead, the Federal Circuit stated that the Commission may appropriately weigh the record evidence in a preliminary determination in order to determine whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."[4] Indeed, the Federal Circuit has stated that "{t}he statute calls for a reasonable indication of injury, not a reasonable indication of need for further inquiry."[5] In addition, the Federal Circuit has stated that Congress intended the Commission to use preliminary determinations to avoid the cost and disruptions to trade caused by unnecessary investigations.[6]

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[1] 19 U.S.C. §§1671b(a)(l) & 1673b(a)(l).

[2] 785 F.2d 994 (Fed. Cir. 1986).

[3] 785 F.2d at 1004.

[4] 785 F.2d at 1001. The Court of International Trade has stated that, when the Commission considers the likelihood that contrary evidence will arise in a final investigation, it "must analyze the 'best information available' contained in the record at the time of its determination and judge the likelihood that evidence contrary to that already gathered will arise in a final determination that would support an affirmative determination." *Calabrian Coro. v. U.S. Int'l Trade Comm'n*, 794 F. Supp. 377, 386 (Ct. In'tl Trade 1992).

[5] *Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

[6] 785 F.2d 994 (Fed. Cir. 1986).

II. No Reasonable Indication of Material Injury by Reason of Subject Imports from Korea

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."[7]

As discussed in section VI.B.1 of the Views of the Commission, I join my colleagues in primarily relying on value-based indicators as the best measure for volume in investigations such as this, which involve a large grouping of items differing greatly in size, characteristics, applications, and price.[8] I also note that this has been the consistent practice of the Commission in prior investigations involving bearings.[9] [10]

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[7] 19 U.S.C. § 1677(7)(C)(i).

[8] *See, e.g.*, *Iron Mechanical Transfer Drive Components*, Inv. No. 701-TA-550 and 731-TA-1304-1305 (Final), USITC Pub. 4652 at 36 n. 190 (Dec. 2016); *Diamond Sawblades and Parts Thereof from China*, Inv. No. 731-TA-1092 (Review), USITC Pub. 4559 at 12 n.64 (Sep. 2015). I am mindful of the limitations of using value rather than quantity measures, such as the difficulty in determining whether changes in value are caused by changes in product mix or price. Therefore, I also considered quantity data based on number of bearings or bearing equivalents, where appropriate. I reach the same conclusions regardless of which measure is used. I also note that the petitions rely on value-based measures, with which respondents also agree. Petitions, Vol. I at I-7 (negligibility); Schaeffler Postconference Brief at 23; Iljin Postconference Brief at 18.

[9] *See, e.g., Ball Bearings from China*, Inv. No. 731-TA-989 (Final), USITC Pub. 3593 at 11 n. 61 (Apr. 2003); *Certain Bearings from China, France, Germany, Hungary, Italy, Japan, Romania, Singapore, Sweden, and the United Kingdom*, Inv. Nos. AA-1921-143, 731-TA-341, 731-TA-343-345, 737-TA-391-397, and 731-TA-399 (Review), USITC Pub. 3309, Vol. I at 39 (Jun. 2000); *Certain Bearings from China, France, Germany, Italy, Japan, Singapore, and the United Kingdom*, Inv. Nos. 731-TA-344, 391-A, 392-A, 396 and 399 (Second Review), USITC Pub. 3876 at 14 (Aug. 2006); *Tapered Roller Bearings from China*, Inv. No. 731-TA-344 (Third Review), USITC Pub. 4343 at 21 (Aug. 2012). *See also Ball Bearings, Mounted or Unmounted, and Parts Thereof, from Argentina, Austria, Brazil, Canada, Hong Kong, Hungary, Mexico, the People's Republic of China, Poland, The Republic of Korea, Spain, Taiwan, Turkey, and Yugoslavia*, Inv. Nos. 701-TA-307 and 731-TA-498-511 (Preliminary), USITC Pub. 2374 at 19-20 (Apr. 1991); *Tapered Roller Bearings and Parts Thereof, and Certain Housings Incorporating Tapered Rollers, from Hungary, the People's Republic of China, and Romania*, Inv. Nos. 731-TA-341, 344-345 (Final), USITC Pub. 1983 (Jun. 1987) at 16.

[10] Moreover, the CIT has upheld the Commission's use of relying on value data rather than quantity data for measuring volume in bearings cases. *See Torrington Co. v. United States*, 16 CIT 220, 230, 790 F. Supp. 1161, 1173 (1992) (finding that it was reasonable for the Commission to use value-based indices when considering the volume of imports due to variations in product sizes and weight per unit between complete bearings and parts (citations omitted)).

The value of subject imports increased by 55.7 percent between 2014 and 2016, rising from $38.4 million in 2014 to $59.8 million in 2016.[11] Subject imports also increased their share of the value of apparent U.S. consumption during the POI, rising from *** percent in 2014 to *** percent in 2016.[12] The increase in the market share of subject imports came at the expense of nonsubject imports, which declined from *** percent of the U.S. market value in 2014 to *** percent in 2016.[13] U.S. producers' share of the value of apparent U.S. consumption increased from *** percent in 2014 to *** percent in 2016.[14] As a ratio to U.S. production, subject imports increased from *** percent in 2014 to *** percent in 2016.[15]

In view of the foregoing, I find the increase in volume of subject imports to be significant in absolute terms and relative to consumption. However, for the reasons discussed elsewhere in this opinion, I do not find that the subject imports had significant price effects or a significant impact on the domestic industry.

B. Price Effects of the Subject Imports

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

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[16]

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[11] CR/PR at Table C-2. The value of subject imports was 51.0 percent higher in January to March ("interim") 2017 ($17.3 million) than in interim 2016 ($11.5 million). The quantity of subject imports increased by 87.0 percent between 2014 and 2016, and was 33.4 percent higher in interim 2017 than in interim 2016. *Id*.

[12] CR/PR at Table C-2. Subject imports' share of the value of apparent U.S. consumption was higher in interim 2017 at *** percent than in interim 2016 at *** percent. On a quantity basis, subject imports' market share increased from *** percent in 2014 to *** percent in 2016, and was *** percent in interim 2016 and *** percent in interim 2017. *Id*.

[13] CR/PR at Table C-2. Nonsubject imports' share of the value of apparent U.S. consumption was *** percent in interim 2016 and *** percent in interim 2017. On a quantity basis, nonsubject imports' market share decreased from *** percent in 2014 to *** percent in 2016, but was higher in interim 2017 at *** percent than in interim 2016 at *** percent. *Id.*

[14] CR/PR at Table C-2. The domestic industry's share of the value of apparent U.S. consumption was *** percent in interim 2016 and *** percent in interim 2017. On a quantity basis, the domestic industry's market share decreased from *** percent in 2014 to *** percent in 2016, and was lower in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id.*

[15] CR/PR at Table C-2. Subject imports were *** percent of U.S. production in interim 2016 and *** percent of U.S. production in interim 2017. *Id.*

[16] 19 U.S.C. § 1677(7)(C)(ii).

As addressed in section VI.B.3 of the Views of the Commission, the record indicates that there is a moderate degree of substitutability between domestically produced TRBs and subject imports from Korea, and that "total cost," which includes price as well as freight, packaging, and duties, is a factor in purchasing decisions for this market.[17]

Based on the pricing products recommended by Timken,[18] the Commission sought quarterly data on the total quantity and f.o.b. value of six TRB products from domestic producers and U.S. importers.[19] One domestic producer and one importer of subject merchandise provided usable data.[20] Reported pricing data accounted for approximately 0.8 percent of the value of the domestic industry's U.S. shipments of in-scope TRBs and 11.1 percent of subject imports from Korea.[21] In cases involving highly varied products such as this, it is unlikely that pricing data coverage will be extensive.[22]

Based on these pricing data, subject imports only were present for products 2 and 5, while the domestic product was present in all six pricing products. For the two products in which both domestic product and subject imports were present, subject imports undersold U.S.-produced TRBs throughout the POI. Prices for subject imports from Korea were lower than prices for the U.S.-produced TRBs in all 26 quarterly instances, involving an aggregate quantity of *** units.[23] Margins of underselling ranged from *** to *** percent, with an average margin of underselling of *** percent.[24]

Although coverage was limited as a share of U.S. producers and importers' shipments, Timken contends that the pricing data collected in this investigation are sufficient to substantiate its argument that Korean subject imports significantly undersold the domestic product.[25]

Respondents Schaeffler and Iljin argue that the pricing data collected by the Commission shows, at best, extremely limited competitive overlap between domestic producers and subject imports.[26] Additionally, Iljin argues that Korean producer Bearing Art did not sell any of the six

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[17] CR at II-12; PR at II-9. Purchasers that responded to Timken's lost sales and lost revenue allegations also identified quality, manufacturing and engineering expertise, design specification for customer application, technological competence, delivery performance, strategic relationship with the supplier, and management commitment as major non-price factors in their purchasing decisions. CR at II-12; PR at II-9.

[18] Petition, Vol. I at I-16-17, and related correspondence (EDIS document 619618).

[19] CR at V-5; PR at V-3.

[20] CR at V-6; PR at V-3.

[21] CR at V-6; PR at V-4.

[22] *See, e.g.*, *Iron Mechanical Transfer Drive Components*, *supra*, at 39; *Kern-Liebers USA, Inc. v. United States*, 19 CIT 87, 114-15 (1995).

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

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

[25] Timken argues that Korean imports and the domestic product are highly substitutable and compete head-to-head for sales across a broad range of part numbers, applications, and customers. Timken Postconference Brief at 34-35.

[26] Schaeffler Postconference Brief at 30; Iljin Postconference Brief at 24.

pricing products in the U.S. market during the POI and does not even manufacture these products in Korea.[27] Schaeffler notes that only *** percent of the reported domestic producers' pricing data value is included in the pricing product comparisons in which there is overlap, underscoring the lack of competition between subject imports from Korea and U.S.-produced product.[28]

While these pricing comparisons demonstrate underselling by subject imports, the record reveals no significant effects as a result of this underselling.[29] Timken argues that Korean imports gained market share at the expense of the domestic industry through significant underselling.[30] As the volume data discussed above demonstrate, the record does not show any significant market share shift from the domestic industry to subject imports during the POI. In fact, as measured by value, the domestic industry increased its market share over the POI. Thus, the record before the Commission does not provide reasonable indication that underselling by subject imports from Korea resulted in a market share shift at the domestic industry's expense.[31]

The record also does not show significant price depression caused by subject imports. Prices of domestically produced TRBs for five of six pricing products were lower in the first quarter of 2017 than in the first quarter of 2014, with net price declines ranging from *** percent to *** percent.[32] Although U.S. prices decreased, this cannot be attributed to subject import pricing, because U.S. prices fell for three pricing products in which there were no subject

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[27] Iljin Postconference Brief at 25.

[28] Schaeffler Postconference Brief at 31.

[29] Compare, *e.g.*, *Altx, Inc. v. United States*, 26 CIT 1425, 1436-37 (2002) (affirming 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).

[30] Timken Postconference Brief at 36. Timken argues that the purchasers that reported purchasing Korean TRBs instead of domestic product reported that the Korean product was priced lower than U.S.-produced TRBs. While those two purchasers did report that prices for subject imports were lower, they also reported that price was not the primary reason for the decision to purchase subject imports rather than U.S.-produced product. Instead, the purchasers identified customer direction and familiarity with supplier as non-price reasons for purchasing imported rather than U.S.-produced TRBs. CR at V-22; PR at V-7.

[31] Respondents suggest that Timken's prices are higher as a result of using case carburizing as a heat treatment methodology, and its marketing campaign of "good, better, and best" to present lower priced alternatives to the market is "an admission by Timken that they have been over-charging in the marketplace." Confr. Tr. 109 (Schamp). Timken responded that it allegedly lost sales or had to reduce prices where Timken's product competed with Korean product that was produced through the same heat treatment method. Timken Postconference Brief at Exh. 7 p. 3. I do not find support in the record for Timken's argument, as none of the U.S. purchasers responding to Timken's lost sales and lost revenue allegations indicated they switched on the basis of price, regardless of heat treatment. CR at V-22; PR at V-7.

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

imports, including for product ***, which had the greatest decrease over the full period out of all pricing products.[33]

Timken argues that there is evidence of price depression in the two pricing products where there was competitive overlap, as subject imports from Korea began the POI at lower prices than the domestic product and continued to decrease throughout the period.[34] However, due to the magnitude of the decline in raw material costs, I do not find that the subject imports caused U.S. prices to fall. By any metric observed, raw material costs fell by considerably more than domestic prices of TRBs during the POI. The average price of scrap metal, the primary raw material input into TRB production, fluctuated and declined overall by 32 percent over the period.[35] U.S. producers' per-unit raw material costs fell by *** percent between 2014 and 2016, while the average unit value of the domestic industry's total net sales decreased by *** percent between 2014 and 2016.[36] In addition, as discussed in Part VI.B.1 of the Views of the Commission, demand also declined over the period, which also placed downward pressure on U.S. prices.

I also do not find that subject imports prevented price increases that otherwise would have occurred to a significant degree during the POI. The domestic industry's ratio of cost of goods sold ("COGS") to total net sales remained constant over the period, increasing slightly from *** percent in 2014 to *** percent in 2015, and then falling to *** percent in 2016.[37] Due to declines in the industry's raw material costs and overall COGS in addition to declines in demand, I do not find significant price suppression.

In sum, I find that subject imports did not have significant effects on U.S. prices during the POI.

C. Impact of the Subject Imports[38]

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

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[33] CR/PR at Table V-9. Three purchasers reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from Korea, and three reported that they did not know whether low-priced subject imports had caused price effects. CR at V-22; PR at V-7.

[34] Timken Postconference Brief at 37.

[35] CR/PR at V-1.

[36] Compiled from U.S. producers' questionnaire data. U.S. producers' per-unit raw material costs were *** percent higher in interim 2017 then in interim 2016, while the average unit value of the domestic industry's total net sales was *** percent lower in interim 2017 than in interim 2016. *Id.*

[37] CR/PR at Table C-2. U.S. producers' COGS to net sales ratio was *** percentage points lower in interim 2017 (*** percent) than in interim 2016 (*** percent).

[38] Commerce initiated the antidumping duty investigation of TRBs from Korea based on estimated dumping margins of 46.28 to 132.24 percent. *Certain Tapered Roller Bearings from the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*, 82 FR 34477 (July 25, 2017).

net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[39]

Overall, the domestic industry's financial and performance indicators were mixed during the POI. Capacity remained relatively stable throughout the period at *** bearings or bearing equivalents in 2014 and 2015, and *** bearings or bearing equivalents in 2016, while production decreased by *** percent between 2014 and 2016 and capacity utilization rates decreased by *** percentage points.[40] As apparent U.S. consumption, measured by value, declined by *** percent between 2014 and 2016, U.S. producers gained *** percentage points of U.S. market share.[41] U.S. producers' U.S. shipments by value declined by *** percent between 2014 and 2016.[42] The domestic industry's inventories declined by *** percent between 2014 and 2016.[43] The number of production workers declined by *** percent between 2014 and 2016. Productivity increased by *** percent and hourly wages increased by *** percent.[44]

The domestic industry's operating income margins remained relatively flat during the POI, changing slightly from *** percent in 2014 to *** percent in 2016.[45] The domestic industry's net income margins also exhibited similar trends, remaining relatively flat at *** percent in both 2014 and 2016.[46] The domestic industry's gross profit margins also remained steady at *** percent in both 2014 and 2016.[47]

Although several of the industry's output-related indicators decreased over the POI, I do not attribute these declines to subject import competition. The industry's declining U.S.

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[39] 19 U.S.C. § 1677(7)(C)(iii).

[40] CR/PR at Table C-2. The domestic industry's capacity was *** percent higher in interim 2017 than in interim 2016, while production and capacity utilization rates were lower at *** percent and *** percentage points, respectively. *Id.*

[41] CR/PR at Table C-2. The domestic industry's share of U.S. consumption value was *** percentage points lower in interim 2017 than in interim 2016. *Id.*

[42] CR/PR at Table C-2. U.S. producers' U.S. shipments by value were *** percent lower in interim 2017 than in interim 2016. *Id.*

[43] CR/PR at Table C-2. The domestic industry's inventories were *** percent higher in interim 2017 when compared to interim 2016. *Id.*

[44] CR/PR at Table C-2. The number of production workers was *** in 2014 and *** in 2016, and was *** percent lower in interim 2017 than in interim 2016, from *** in interim 2016 to *** in interim 2017. *Id.* During interim 2016 and 2017, productivity was *** bearings or bearing equivalents per hour and *** bearings or bearings equivalents per hour, respectively. *Id.*

[45] CR/PR at Table C-2. The domestic industry's operating income margins were *** percentage points higher in interim 2017 (*** percent) than in interim 2016 (*** percent). *Id.*

[46] CR/PR at Table C-2. The domestic industry's net income margins were *** percentage points higher in interim 2017 (*** percent) than in interim 2016 (***) percent. *Id.*

[47] CR/PR at Table C-2. The domestic industry's gross profit margin was *** percent in interim 2016 and *** percent in interim 2017. *Id.*

shipments, production, and employment indicators corresponded with declining apparent U.S. consumption, as the industry was able to maintain a stable market share. Although subject imports increased, they did so at the expense of nonsubject imports, not the domestic industry. Subject imports also did not cause the domestic industry's prices to decline, nor did they prevent the domestic industry from increasing prices. As a result, the industry's operating income margin remained stable and high throughout the period. Thus, I do not find that the domestic industry's condition was worse than it would have been otherwise due to subject import competition.[48]

For the above reasons, I find that the record as a whole contains clear and convincing evidence that the domestic industry is not materially injured by reason of subject imports. In addition, based on the available information, I do not find a likelihood that sufficient evidence leading to a contrary result will arise in any final phase of this investigation.[49]

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[48] In addition to output and production declines that they ascribe to subject imports from Korea, Timken also asserts that the increasing volume of low-priced TRBs from Korea prevented it from meeting its cost of capital on unhoused 0 to 8 inch TRBs, which led to sharp declines in capital investment and research and development expenditures. Timken Postconference Brief at 38. Given my findings that subject imports did not cause price depression or suppression, as well as the domestic industry's sustained high levels of profitability, I do not find that subject imports impacted domestic industry's cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, or research and development. Although the industry's capital expenditures decreased by *** percent between 2014 and 2016, they were *** percent higher in interim 2017 than in interim 2016 despite subject import volumes continuing to increase. CR/PR at Table C-2. Moreover, while R&D expenditures declined by *** percent between 2014 and 2016, they increased by *** percent between 2015 and 2016, also while subject import volumes continued to increase. Compiled from U.S. producers' questionnaire data. These trends further demonstrate a lack of causal link between subject imports and the industry's ability to invest in itself.

[49] I note that the Views of the Commission indicate that the Commission intends to pursue additional lines of inquiry in any final phase of this investigation, including inviting further comment on the definition of the domestic like product and examining demand trends for principal end-use sectors However, based on the record of the preliminary phase of this investigation, I do not find that these additional inquiries are likely to generate sufficient evidence leading to a contrary result. A narrower domestic like product definition coextensive with the scope, as favored by Timken, does not change the volume of subject imports or the pricing data gathered by the Commission. Although the domestic industry's market share, output-related indicia, and profitability were lower for the industry producing this narrower product, these indicators remained stable over the POI, consistent with my findings above for the broader like product. *Compare* CR/PR at Table C-1 and Table C-2. In addition, the question of whether the domestic industry's decline in U.S. shipments was the result of changes in demand for specific end-use sectors does not affect my finding that the industry's overall market share remained stable, and that U.S. shipments declined in line with apparent U.S. consumption.

III. No Reasonable Indication of Threat of Material Injury by Reason of Subject Imports from Korea

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S. 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."[50] 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.[51] In making my determination, I consider all statutory threat factors that are relevant to this investigation.[52]

The Commission issued questionnaires to 35 firms believed to produce and/or export TRBs from Korea, and received usable responses from two firms believed to account for *** percent of overall production of TRBs in Korea and virtually all U.S. imports of TRBs from Korea

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[50] 19 U.S.C. § 1677(7)(F)(ii).

[51] 19 U.S.C. § 1677(7)(F)(ii).

[52] 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).

in 2016.[53] Based on the information submitted by these firms, Korean capacity and production of TRBs increased between 2014 and 2016, and are projected to increase throughout 2017 and into 2018. While capacity utilization rates declined between 2014 and 2016 as capacity increases outpaced production increases, it is likely that excess capacity will decrease in the imminent future. The Korean industry had higher capacity utilization rates in interim 2017 than in interim 2016 and was projected to maintain elevated capacity utilization in full-year 2017 and 2018.[54] The record also shows that the Korean industry is export-oriented, and exported between *** percent and *** percent of its total TRB shipments during the period with an increasing share of its exports being shipped to the United States.[55] [56]

I find that the data relevant to my threat analysis is consistent with the increase in subject imports, both absolutely and relative to U.S. consumption, that occurred over the POI. Therefore, I find that subject imports from Korea are likely to continue to increase in the imminent future. Nonetheless, I have found no reasonable indication of material injury by reason of subject imports, noting the lack of correlation between the significant increase in the volume of low-priced subject imports and the domestic industry's condition.[57] The evidence on

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[53] CR at VII-3; PR at VII-3.

[54] CR/PR at Table VII-3. Korean producers reported capacity utilization rates of *** percent in 2014, *** percent in 2015, *** percent in 2016, *** percent in interim 2016, and *** percent in interim 2017, and projected capacity utilization of *** percent in 2017 and *** percent in 2018. *Id*.

[55] CR/PR at Table VII-3. As a percentage of total shipments, total exports of TRBs from Korea accounted for *** percent in 2014, *** percent in 2015, *** percent in 2016, *** percent in interim 2016, and *** percent in interim 2017. As a percentage of total shipments, exports of TRBs from Korea to the United States accounted for *** percent in 2014, *** percent in 2015, *** percent in 2016, *** percent in interim 2016, and *** percent in interim 2017. *Id*.

[56] I have also considered several other statutory threat factors. The Korean industry's end-of-period inventories declined relative to the Korean industry's reported total shipments, falling from *** percent in 2014 to *** percent in 2016, and were *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table VII-3. U.S. importers' inventories increased as a ratio to U.S. shipments of the imports of subject merchandise, rising from *** percent in 2014 to *** percent in 2016, and were *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table VII-6.

Only one firm, ***, reported producing other products on the same equipment and machinery used to produce TRBs, and these non-TRB products accounted for the vast majority of production by ***. CR/PR at VII-4. Despite a decline in capacity utilization over the POI, *** production of products other than in-scope TRBs remained *** of its total production throughout the POI. *** Foreign Producer Questionnaire Response at II-4a. Based on this consistent production mix, I find that there is limited potential for product shifting.

There are no known trade barriers in third-country markets covering Korean exports of TRBs.

[57] I also note that in interim 2017, when subject imports from Korea accounted for *** percent of apparent U.S. consumption by value, virtually all of the domestic industry's financial indicators showed improvement from interim 2016. The domestic industry's operating income increased by *** percent, net income increased by *** percent, capital expenditures increased by *** percent, operating income margins increased by *** percentage points, and net income margins increased by *** percentage points. CR/PR at Table C-2.

the record does not indicate that any future increase in subject imports will occur more rapidly or injuriously than what occurred during the POI, or that the domestic industry will become vulnerable to subject imports in a way not evident during the POI.

For the above reasons, I determine that the record as a whole contains clear and convincing evidence that a domestic industry is not threatened with material injury by reason of subject imports. In addition, based on the available information, I do not find a likelihood that evidence leading to a contrary result will arise in any final phase of this investigation.

IV. Conclusion

For the reasons stated above, I determine that there is no reasonable indication that an industry in the United States is materially injured, or threatened with material injury, by reason of subject imports of TRBs from Korea that are allegedly sold in the United States at less than fair value.

PART I: INTRODUCTION

BACKGROUND

This investigation results from a petition filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by The Timken Company ("Timken"), North Canton, Ohio, on June 28, 2017, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of tapered roller bearings ("TRBs")[1] from Korea. The following tabulation provides information relating to the background of this investigation.[2] [3]

Effective date	Action
June 28, 2017	Petition filed with Commerce and the Commission; institution of Commission investigation (82 FR 31067, July 5, 2017)
July 18, 2017	Commerce's notice of initiation (82 FR 34477, July 25, 2017)
July 19, 2017	Commission's conference
August 11, 2017	Commission's vote
August 14, 2017	Commission's determination
August 21, 2017	Commission's views

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

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

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

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

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

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

determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that—[4]

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

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

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

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

Organization of report

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

MARKET SUMMARY

TRBs are classified under the larger product category of antifriction bearings and are generally used in automotive, heavy machinery, and railroad applications where it is necessary to counteract friction caused by both radial and thrust loads. The leading U.S. producer of TRBs is Timken, while leading Korean producers of TRBs include Schaeffler Korea Corporation ("Schaeffler") and Bearing Art Corp. ("Bearing Art"). The leading U.S. importers of TRBs from Korea are *** while leading importers of product from nonsubject countries (primarily China and Japan) include ***. Based on limited responses to the Lost Sales/Lost Revenue Survey, the largest purchasers in 2014-16 were ***.[6]

Apparent U.S. consumption of TRBs totaled approximately $*** (*** units) in 2016. Currently, four firms are known to produce TRBs in the United States. U.S. producers' U.S. shipments of TRBs totaled $*** (*** units) in 2016, and accounted for *** percent by value and *** percent of apparent U.S. consumption by quantity. U.S. imports from Korea totaled $59.8 million (10.7 million units) in 2016 and accounted for *** percent of apparent U.S. consumption by value and *** percent by quantity. U.S. imports from nonsubject sources totaled $374.7 million (73.5 million units) in 2016 and accounted for *** percent of apparent U.S. consumption by value and *** percent by quantity.

[6] Purchasers that received the Lost Sales/Lost Revenue Survey were identified by *** as firms with which it had lost sales volume or sales revenue and are not a representative set of all the purchasers in the TRB industry.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in this investigation is presented in appendix C.[7] Except as noted, U.S. industry data are based on questionnaire responses of four firms that accounted for the vast majority of U.S. production of TRBs during 2016. U.S. imports are based on adjusted official Commerce statistics[8] and the questionnaire responses of 17 firms, representing 79.4 percent of U.S. imports from Korea and 51.4 percent of total U.S. imports during 2016, based on value. Foreign industry data are based on the questionnaire responses of two firms whose exports accounted for virtually all U.S. imports of TRBs from Korea and approximately *** percent of overall Korean TRB production during 2016.

PREVIOUS AND RELATED INVESTIGATIONS

Tapered roller bearings have been the subject of several prior import relief investigations in the United States. There is currently an antidumping duty order in effect covering imports of tapered roller bearings from China.[9]

On October 31, 1973, a complaint was filed at the Treasury Department ("Treasury) on behalf of domestic producers alleging that tapered roller bearings from Japan were being sold at LTFV. Treasury instituted an antidumping investigation on December 4, 1973, and on October 24, 1974, the then Tariff Commission instituted investigation No. AA 1921-143. On August 18, 1976, Treasury published a finding with respect to tapered roller bearings and certain components thereof from Japan. On June 15, 1982, Commerce published a revocation of the antidumping finding on tapered roller bearings, 4 inches or less in outside diameter when

[7] The Commission collected data on TRBs as well as certain out-of-scope tapered roller bearings. The aggregate data for TRBs are presented in table C-1, while the aggregate data for all tapered roller bearings (in-scope plus out-of-scope) are presented in table C-2.

[8] Import data presented in this report are based on adjusted official import statistics for Harmonized Tariff Schedule ("HTS") statistical reporting numbers 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580. Prior to July 2016, subject TRBs were imported under HTS statistical reporting numbers 8482.20.0060, 8482.20.0080, and 8482.99.1540, which covered product outside the scope of this investigation. Effective July 2016, HTS statistical reporting numbers 8482.20.0061, 8482.20.0081, and 8482.99.1550 were introduced to cover subject TRBs only.

[9] The Commission has also conducted an investigation on railway freight car journal roller bearings. The scope in that investigation was limited to tapered roller bearings used in large capacity freight rail cars with diameters of 5.5"x10", 6"x11", and 6.5"X12." See, e.g., *Certain Tapered Roller Bearings and Parts Thereof from Japan, the Federal Republic Of Germany, and Italy, Investigations Nos. 731-TA-120, 731-TA-121, and 731-TA-122 (Preliminary)*, USITC Publication 1359, March 1983.

assembled, including inner race or cone assemblies and outer races or cups, exported to and sold in the United States either as a unit or separately, from Japan, produced and sold by NTN.[10]

On August 25, 1986, petitions were filed by Timken, alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV imports of tapered roller bearings from China, Hungary, Italy, Japan,[11] Romania, and Yugoslavia. Following affirmative final determinations by Commerce and injury by the Commission, Commerce published antidumping duty orders with respect to China on June 15, 1987, Hungary and Romania on June 19, 1987, and Japan on October 6, 1987. Commerce also issued orders on tapered roller bearings from Italy and Yugoslavia, but the orders were ultimately revoked on October 9, 1996 and November 24, 1995, respectively. [12]

On June 22, 2000, the Commission found that revocation of the antidumping duty order on tapered roller bearings from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[13] It also found that revocation of the antidumping duty orders on tapered roller bearings from Hungary, Japan, and Romania would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[14] In August 2006 and August 2012, the Commission completed full second and third five-year reviews on tapered roller bearings from China, in which it determined that revocation of the antidumping duty order on tapered roller bearings from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. [15] The Commission instituted the fourth five-year review on tapered roller bearings from China on July 3, 2017.[16]

In addition to Title VII investigations, on June 9, 1993, following receipt of a request from the Office of the United States Trade Representative, the Commission instituted

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[10] *Tapered Roller Bearings and Certain Components from Japan,* 41 FR 34974, August 18, 1976; and *Tapered Roller Bearings and Certain Components Thereof From Japan; Final Results of Administrative Review and Revocation In Part of Antidumping Finding,* 47 FR 25757, June 15, 1982.

[11] The petition, as it related to Japan, was filed to cover those tapered roller bearings that were not subject to the 1976 finding by Treasury. The 1987 order on Japan pertained to finished tapered roller bearings and components four inches in outside diameter and under from NTN, finished tapered roller bearings and components over four inches in outside diameter, and finished and unfinished parts for all sizes of tapered roller bearings.

[12] *Tapered Roller Bearings From Italy, Revocation of the Antidumping Duty Order*, 61 FR 52920, October 9, 1996 and *Tapered Roller Bearings From Yugoslavia, Revocation of the Antidumping Duty Order*, 60 FR 58046, November 24, 1995.

[13] *Certain Bearings From China, France, Germany, Hungary, Italy, Japan, Romania, Singapore, Sweden, and the United Kingdom,* 65 FR 39925, June 28, 2000.

[14] Ibid.

[15] *Certain Bearings From China, France, Germany, Italy, Japan, Singapore, and the United Kingdom*, 71 FR 51850, August 31, 2006; *Tapered Roller Bearings from China, Determination*, 77 FR 50716, August 22, 2012.

[16] *Tapered Roller Bearings From China; Institution of a Five-Year Review*, 82 FR 30898, July 3, 2017.

investigation No. 332-344 under section 332(g) of the Act for the purpose of analyzing the economic effects of antidumping and countervailing duty orders and suspension agreements. The Commission conducted eight case studies representing various U.S. industries, including tapered roller bearings and ball bearings.[17]

NATURE AND EXTENT OF ALLEGED SALES AT LTFV

On July 25, 2017, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on TRBs from Korea.[18] Commerce has initiated its antidumping duty investigation based on estimated dumping margins of 46.28 to 132.24 percent.

THE SUBJECT MERCHANDISE

Commerce's scope

Commerce has defined the scope of this investigation as follows:[19]

> The scope of this investigation is certain tapered roller bearings. The scope covers all tapered roller bearings with a nominal outside cup diameter of eight inches and under, regardless of type of steel used to produce the bearing, whether of inch or metric size, and whether the tapered roller bearing is a thrust bearing or not. Certain tapered roller bearings include: Finished cup and cone assemblies entering as a set, finished cone assemblies entering separately, and finished parts (cups, cones, and tapered rollers). Certain tapered roller bearings are sold individually as a set (cup and cone assembly), as a cone assembly, as a finished cup, or packaged as a kit with one or several tapered roller bearings, a seal, and grease. The scope of the investigation includes finished rollers and finished cones that have not been assembled with rollers and a cage. Certain tapered roller bearings can be a single row or multiple rows (e.g., two- or four-row), and a cup can handle a single cone assembly or multiple cone assemblies.
>
> Finished cups, cones, and rollers differ from unfinished cups, cones, and rollers in that they have undergone further processing after heat treatment, including, but not limited to, final machining, grinding, and/or

[17] The results of the Commission's study are presented in USITC Publication 2900, June 1995.

[18] *Certain Tapered Roller Bearings From the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*, 82 FR 34477, July 25, 2017.

[19] *Certain Tapered Roller Bearings From the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*, 82 FR 34477, July 25, 2017.

polishing. Mere heat treatment of a cup, cone, or roller (without any further processing after heat treatment) does not render the cup, cone, or roller a finished part for the purpose of this investigation. Finished tapered roller bearing parts are understood to mean parts which, at the time of importation, are ready for assembly (if further assembly is required) and require no further finishing or fabrication, such as grinding, lathing, machining, polishing, heat treatment, etc. Finished parts may require grease, bolting, and/or pressing as part of final assembly, and the requirement that these processes be performed, subsequent to importation, does not remove an otherwise finished tapered roller bearing from the scope.

Tapered roller bearings that have a nominal outer cup diameter of eight inches and under that may be used in wheel hub units, rail bearings, or other housed bearings, but entered separately, are included in the scope to the same extent as described above. All tapered roller bearings meeting the written description above, and not otherwise excluded, are included, regardless of coating.

Excluded from the scope of this investigation are:
(1) Unfinished parts of tapered roller bearings (cups, cones, and tapered rollers); (2) cages, whether finished or unfinished; (3) the non-tapered roller bearing components of subject kits (e.g., grease, seal); and
(4) tapered roller bearing wheel hub units, rail bearings, and other housed tapered roller bearings (flange, take up cartridges, and hanger units incorporating tapered rollers).

Tapered roller bearings subject to this investigation are primarily classifiable under subheadings 8482.20.0040, 8482.20.0061, 8482.20.0070, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580 of the Harmonized Tariff Schedule of the United States (HTSUS).[20] Parts may also enter under 8482.99.4500. While the HTSUS subheadings are provided for convenience and for customs purposes, the written description of the subject merchandise is dispositive.

[20] Prior to July 2016, products entering under 8482.20.0061 entered under 8482.20.0060, products entering under 8482.20.0081 entered under 8482.20.0080, and products entering under 8482.99.1550 and 8482.99.1570 entered under 8482.99.1540.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to this investigation are imported under the following statistical reporting numbers of the Harmonized Tariff Schedule of the United States ("HTS"): 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1540, 8482.99.1550, and 8482.99.1580.[21]

Merchandise imported under HTS statistical reporting numbers 8482.20.0060; 8482.20.0080; 8482.99.1540; and 8482.99.1580 cover products outside of the scope of this investigation. HTS statistical reporting numbers 8482.20.0040, 8482.20.0061, 8482.20.070, 8482.20.0081, and 8482.99.1550 cover only merchandise within the scope of this investigation.

The 2017 special rate of duty for goods originating from Korea under the free trade agreement with that country is 2.3 percent ad valorem for HTS subheadings 8482.20.00; 8482.91.00; and 8482.99.15. The 2017 general rate of duty is 5.8 percent ad valorem for HTS subheadings 8482.20.00 and 8482.99.15 and 4.4 percent for HTS subheading 8482.91.00.

THE PRODUCT

Description and applications[22]

TRBs are classified under the larger product category of antifriction bearings. Antifriction bearings are machine components that permit free motion between moving and fixed parts by holding, separating, or guiding the motion of parts to minimize friction and wear. Like any antifriction bearing, a TRB is made up of four basic components: the cup, cone, cage, and rollers (Figure I-1). The cup, also called the outer ring, is the largest part of the assembly. The cup's inner surface is tapered to conform to the angle of the roller assembly. The cone forms the inner race of the bearing --the groove where the rollers are located. The cage keeps the rollers equally distributed around the cup and cone. The rollers reduce friction by operating as the rotating elements.

[21] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

[22] Unless otherwise noted, information presented is based on *Tapered Roller Bearings from China, Inv. No. 731-TA-344,* USITC Publication 4343, August 2012, pp. I-18-21.

Figure I-1
TRB

Source: Timken's Tapered Roller Bearing catalog.

The rollers, cage, and cone are joined together to form a cone assembly. When joined with a cup, the cone assembly and cup form a TRB set. The rolling elements transmit the physical load or force from the moving parts to the stationary support. Under normal operating conditions, the races and rolling elements carry the load, while the cage spaces and retains the rollers. TRBs provide combined radial and thrust load capability.

TRBs may also be fitted with seals or shields, which protect the bearing from contamination and extend bearing life. TRB sizes vary considerably, from a few millimeters to several meters in outside diameter. TRBs are primarily made from alloy steel; however, some bearing types and certain components may be fabricated from materials such as stainless steel, bronze, copper, ceramic, and certain plastics.

TRBs made to inch dimensions are classified by standard industry definitions published by the American Bearing Manufacturers Association (ABMA) and the American National Standards Institute (ANSI). ABMA 19.2, for example, defines the classes (classes 4, 2, 3, 0, and 00) of inch TRBs based on dimensional tolerances. Class 4 is considered the standard or most basic tolerance, and has the least restrictive tolerances for bearings made to inch dimensions.

TRBs are used in applications where it is necessary to counteract friction caused by both radial and thrust loads. TRBs are able to withstand such combined loads while offering moderate speed capacity and heavy load capacity. The primary end market for this type of bearing is the automotive industry. TRBs are also used extensively in the heavy machinery sector, primarily in construction, agricultural equipment, and railroad industries. More specifically, TRBs are widely used in these industries in transmissions and wheel applications.

Manufacturing processes[23]

Like other antifriction bearings, the production of TRBs is a relatively mature and capital intensive process that involves four major steps: green machining, heat treatment, finishing, and assembly and inspection. Special bearing-grade alloy steel in the form of seamless tubing is the raw material utilized in the production of most inner and outer rings. Alloy wire, in the form of coils, is the base material for roller production. There is a generally accepted minimum industry standard for steel utilized in bearings production; however, the raw material used by most bearing manufacturers exceeds this standard in quality. TRBs are generally produced on dedicated machinery, and a producer cannot switch production of TRBs to other types of bearings without reconfiguration of production lines, which adds to costs.[24] Thus, firms cannot easily switch from producing one type of bearing to another.

Green machining is the first step in the TRB production process and refers to the machining operations performed on the raw material prior to heat treatment. For inner and outer rings, steel tubing is machined on single or multiple screw machines. When the desired contour and shape is achieved, the inner or outer ring is sheared off the end of the tube. Green machining the inner ring involves more steps because of the complexity of the design and function of this component. The machined components are then inspected and gauged to ensure adherence to the prescribed specifications. Alternately, the process may begin with steel bar, which is processed to create rough forgings. These forgings are then green-machined, inspected, and gauged so that they are ready for heat treatment. The green machining of rollers begins with coil wire drawn into a cold header machine where the rollers are sheared in rapid succession and are "headed" or butted in a die to the desired shape.

Following the green machining process, TRB components are heat-treated to ensure durability, hardness, and shock resistance. The first step in this process, known as carburization, heats the green-machined components in a carbon-rich atmosphere to impregnate carbon into the surface of the product. The components are then "quenched" or immersed in an oil bath. After quenching, the carburized outside case becomes very hard, whereas the lower carbon core remains comparatively soft. The highly carburized outer layer ensures that the roller contact surfaces will be hard and wear-resistant, while the softer core enables the bearing to absorb shocks more easily. The next stage of heat treatment is applicable in the manufacture of all steel bearing parts, with the exception of cages. The components are placed in a tempering furnace and heated to very high temperatures for an extended period of time. This process improves the toughness and durability of the bearing component. The components are then placed in a stamping die for reshaping, as the heating process distorts their size, and are quenched once more in an oil bath.

The third phase of production is finishing. This process consists mainly of a series of grinding and honing operations to ensure that the components are sized to the required precise

[23] Unless otherwise noted, information presented is based on *Tapered Roller Bearings from China, Inv. No. 731-TA-344,* USITC Publication 4343, August 2012, pp. I-21-22.

[24] Conference transcript, p. 24 (Coughlin).

tolerances and polished to ensure the smoothest possible rolling surface. Grinding is performed in a series of steps wherein the width, outside diameter, and bore of the inner and outer rings are shaped. Honing involves the polishing of the inside diameter of the outer ring and the outside diameter of the inner ring. Rollers are finished somewhat differently than are the inner and outer rings. The basic steps involve rough-grinding the roller body, grinding the roller end, finish-grinding the roller body, and roller-honing. Rollers initially pass through a number of grinding machines that remove steel from the outside diameter in order to obtain a specified size. During end-grinding, steel is removed from the large end of the roller, leaving a slightly convex shape. After final grinding and honing, the rollers are inspected, gauged, and packaged in their sequential order of production to minimize the variance of a complement of rollers in an inner ring assembly.

After the finishing process, the TRBs are assembled. Cages are mounted on an assembly nest and the rollers are placed in the openings or pockets of the cage. The inner ring is then inserted into the middle of the cage. The inner and outer ring assemblies are then demagnetized, inspected, slushed with a protective anti-rust solution, and packaged for shipment.

TRB producers may meet certain international quality standards that are an indicator of a producer's ability to supply quality TRBs. International Standard Organization (ISO) standards 9001:2000 and ISO 9001:2008 lay out the requirements for a quality management system for TRB producers. ISO standard certification demonstrates a firm's production complies with customer and regulatory requirements, meets international standards, and allows for continual improvement. ISO/TS 16949 establishes the quality management system requirements for the design and development, production, installation, and service of automotive-related products, and ISO 14001 addresses environmental management system standards.

DOMESTIC LIKE PRODUCT ISSUES

The petitioner proposes that the domestic like product in this investigation be defined as a single like product, co-extensive with the scope.[25] Respondent Iljin argues that the Commission should define the domestic like product to include all TRBs, with the exception of housed bearings and unfinished parts, while respondent Schaeffler contends that the Commission should define the domestic like product to include all TRBs, with the exception of wheel hub units.[26] [27] The Commission's decision regarding the appropriate domestic product(s)

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[25] Petition, p. I-2.

[26] Respondent Iljin's postconference brief, p. 5; and Respondent Schaeffler's postconference brief, p. 6.

[27] TRB wheel hub assemblies, also referred to as wheel hub units, hub unit bearings, and wheel end solutions, are more commonly used on vehicles with higher load factors, such as medium and heavy duty trucks, and can be attached to drive or non-drive axles. Outer ring rotation is typically specific to non-drive axles, whereas inner ring rotation is used for both drive and non-drive axles.

(*continued*...)

that are "like" the subject imported product is based on a number of factors including: (1) physical characteristics and uses; (2) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and producer perceptions; (5) channels of distribution; and (6) price. Information regarding these factors is discussed below.

Four firms reported domestic production of TRBs. Timken and NTN-Bower collectively accounted for *** percent of domestic TRB production in 2016 and also produce tapered roller bearings that due to dimension, degree of finish/assembly, or level of manufacture, are excluded from the scope of the present investigation (although included within the domestic like product of the Commission's investigation on tapered roller bearings from China, for which a fourth five-year review was instituted in July 2017).[28] Koyo and NSK Corporation ("NSK") collectively accounted for *** percent of U.S. TRB production in 2016 and did not produce tapered roller bearings that are excluded from the scope of the present investigation. A fifth firm, Amsted, reported producing out-of-scope railroad bearings only. None of these firms reported producing TRBs and excluded tapered roller bearings on the same equipment or with shared workers.

Domestic producers ship the majority of TRBs to end users (*** percent in 2016). U.S. producers also ship the majority of tapered roller bearings that are excluded from the scope of the present investigation to end users (*** percent in 2016). The average unit value of U.S. producers' commercial U.S. shipments of TRBs was $*** in 2016, while the average unit value of U.S. producers' commercial U.S. shipments of tapered roller bearings that are excluded from the scope of the present investigation was $*** in 2016. The *** unit value for out-of-scope tapered roller bearings is driven by ***.

The Commission asked U.S. producers and importers to comment on the comparability of in-scope TRBs and out-of-scope TRBs, based on the Commission's six like product factors. Specifically, companies commented on out-of-scope TRBs with an outside diameter greater than eight inches, TRBs that are further manufactured (i.e., wheel hub units, rail bearings, and other housed TRBs), and unfinished parts. A tabulation of their responses is presented in tables I-1 to I-3. The Commission also collected aggregate data for all tapered roller bearings (in-scope and out-of-scope merchandise), presented in Appendix C of this report.

(…*continued*)

These assemblies may include anti-lock braking system (ABS) sensors, which measure wheel speed. Certain customers choose the bearing to locate the ABS sensor; other customers measure wheel speed outside the bearing or completely independent of the bearing.

[28] *Tapered Roller Bearings From China; Institution of a Five-Year Review*, 82 FR 30898, July 3, 2017.

Table I-1

TRBs: U.S. producers' and U.S. importers' responses to the domestic like product comparisons for in-scope TRBs and out-of-scope TRBs with an outside diameter greater than eight inches

* * * * * * *

Table I-2

TRBs: U.S. producers' and U.S. importers' responses to the domestic like product comparisons for in-scope TRBs and out-of-scope TRB unfinished parts

* * * * * * *

Table I-3

TRBs: U.S. producers' and U.S. importers' responses to the domestic like product comparisons for in-scope TRBs and out-of-scope TRBs that are further processed

* * * * * * *

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

U.S. MARKET CHARACTERISTICS

A standard TRB is made of four elements: an inner ring (called a cone), an outer ring (a cup), tapered rollers that fit between the cup and the cone, and a cage that aligns and spaces the rollers. TRBs are sold individually as sets (cup and cone assembly), as a cone assembly, as a finished cup, or packaged as a kit.[1] TRBs are made to the ISO 335 international standard, ANSI/ABMA (American National Standards Institute/American Bearings Manufacturers Association) 19.2:2013 (radial inch design), and ANSI/ABMA 19.1.2011 (radial metric design) standards.[2] According to respondent Iljin, TRBs are highly engineered, precision products that must be designed to satisfy a customer's particular specifications for use in a particular automobile which major customers often take two to three years to test, design, sample, and obtain final customer approval.[3] [4] TRBs are used extensively in the auto industry, in the heavy machinery sector, primarily in agricultural and construction equipment, and the general industrial sector.[5]

Apparent U.S. consumption of TRBs, by value, decreased during 2014-16. Overall, apparent U.S. consumption in 2016 was *** percent lower than in 2014.[6]

CHANNELS OF DISTRIBUTION

U.S. producers and importers sold the majority of their TRBs to end users, as shown in table II-1.

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

* * * * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers and importers reported selling TRBs to all regions. All three responding producers reporting selling to the Northeast, Midwest, Southeast, and Central Southwest and all three responding importers reported selling to the Midwest and Southeast (table II-2). For

[1] Petition, pp. I-10-12.
[2] Petitioner Timken's postconference brief, Answers to Staff questions, #2, p. 1 and exhibits 1-3.
[3] Respondent Iljin's postconference brief, p. 14.
[4] Conference transcript, p. 104 (Dix) and respondent Schaeffler's postconference brief, p. 17.
[5] Petition, p. I-13.
[6] The value of apparent U.S. consumption in January-March 2017 was *** percent lower than January-March 2016.

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

Region	U.S. producers	Importers
Northeast	3	2
Midwest	3	3
Southeast	3	3
Central Southwest	3	2
Mountain	1	2
Pacific Coast	2	2
Other[1]	1	0
All regions (except Other)	1	2
Reporting firms	3	3

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

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

SUPPLY AND DEMAND CONSIDERATIONS

U.S. supply

Domestic production

Based on available information, U.S. producers of TRBs have the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced TRBs to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, availability of inventories, and the ability to shift shipments from alternate markets. The inability to shift production to or from alternate products somewhat mitigates responsiveness.

Industry capacity

Domestic capacity utilization decreased from *** percent in 2014 to *** percent in 2016 as capacity remained stable and production declined.[7] This relatively low level of capacity utilization suggests that U.S. producers may have substantial ability to increase production of TRBs in response to an increase in prices.

[7] Domestic capacity utilization was *** percent in January-March 2016 and was *** percent in January-March 2017.

Alternative markets

U.S. producers' exports, as a percentage of total shipments, decreased slightly. U.S. producers' export shipments declined from *** in 2014 to *** in 2016, by value, indicating that U.S. producers may have some ability to shift shipments between the U.S. market and other markets in response to price changes.[8] *** reported that it exports to *** and *** reported that it exports to ***.

Inventory levels

U.S. producers' inventory levels increased, relative to total shipments, from *** percent in 2014 to *** percent in 2016.[9] These inventory levels suggest that U.S. producers may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

All five responding U.S. producers stated that they could not switch production from TRBs to other products. The main factor affecting U.S. producers' ability to shift production is machinery configuration that cannot be easily modified to produce other product types.

Subject imports from Korea[10]

Based on available information, producers of TRBs from Korea have the ability to respond to changes in demand with large changes in the quantity of shipments of TRBs to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, the availability of inventories, the ability to shift shipments from alternate markets and the ability to shift production to or from alternate products.

Industry capacity

Korean capacity utilization decreased from *** percent in 2014 to *** percent in 2016 as increased capacity outpaced production growth.[11] This relatively moderate level of capacity

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[8] U.S. producers' export shipments were *** percent of total shipments by value in January-March 2016 and *** percent in January-March 2017.

[9] U.S. producers' inventory levels, relative to total shipments, were *** percent in January-March 2016 and were *** percent in January-March 2017.

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

[11] Korean capacity utilization was *** percent in January-March 2016 and was *** percent in January-March 2017.

utilization suggests that Korean producers may have some ability to increase production of product in response to an increase in prices.

Alternative markets

Korean shipments to markets other than the United States, as a percentage of total shipments, decreased. Shipments to domestic markets declined from *** percent in 2014 to *** percent in 2016, and shipments to export markets other than the United States rose from *** percent in 2014 to *** percent in 2016.[12] Korean exports indicate that producers may have ample ability to shift shipments between domestic or other markets and the U.S. market in response to price changes.

Inventory levels

Responding Korean firms' inventories declined, relative to total shipments, from *** percent in 2014 to *** percent in 2016.[13] These inventory levels suggest that responding Korean firms may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

Both responding Korean producers stated that they could not switch production from TRBs to other products. However, ***.

Supply constraints

All responding U.S. producers (4) and importers (15) reported that they did not experience supply constraints since January 1, 2014.

Imports from nonsubject sources

Imports from nonsubject sources accounted for more than 86 percent of the value of total U.S. imports in 2016. The largest sources of nonsubject imports were China and Japan. Imports from these two countries alone accounted for more than 50 percent of all TRB imports from nonsubject sources.

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[12] Korean shipments to domestic markets were *** percent of total shipments in January-March 2016 and were *** percent in January-March 2017. Shipments to export markets other than the United States were *** percent of total shipments in January-March 2016 and were *** percent in January-March 2017.

[13] Responding Korean firms' inventories, relative to total shipments, were *** percent in January-March 2016 and were *** percent in January-March 2017.

U.S. demand

Based on available information, the overall demand for TRBs is likely to experience small changes in response to changes in price. The main contributing factors are the small cost share of TRBs in most of its end-use products and the lack of substitute products. Petitioner Timken described demand as flat to declining during January 2014 to March 2017.[14]

End uses and cost share

U.S. demand for TRBs depends on the demand for U.S.-produced downstream products. TRBs are utilized primarily in trucks and agricultural equipment where the load carrying capacity is more important than rotational speed. Reported end uses include axles, transmissions, wheel hub assemblies, class 8 truck rebuild kits, and industrial equipment. TRBs are also sold as-is in the aftermarket. TRBs generally account for a small share of the cost of the end-use products in which it is used, unless they are sold in the aftermarket. Some reported end uses and cost shares were as follows:

- Transmissions (2-5 percent)
- Wheels (5 percent)
- Axle (5-15 percent)
- TWC transfer case (6 percent)
- Lawn/Garden (15 percent)
- Wheel hub assemblies (15 percent)
- PTU (20 percent)
- Gear Boxes (25 percent)
- Aftermarket (100 percent)

Business cycles

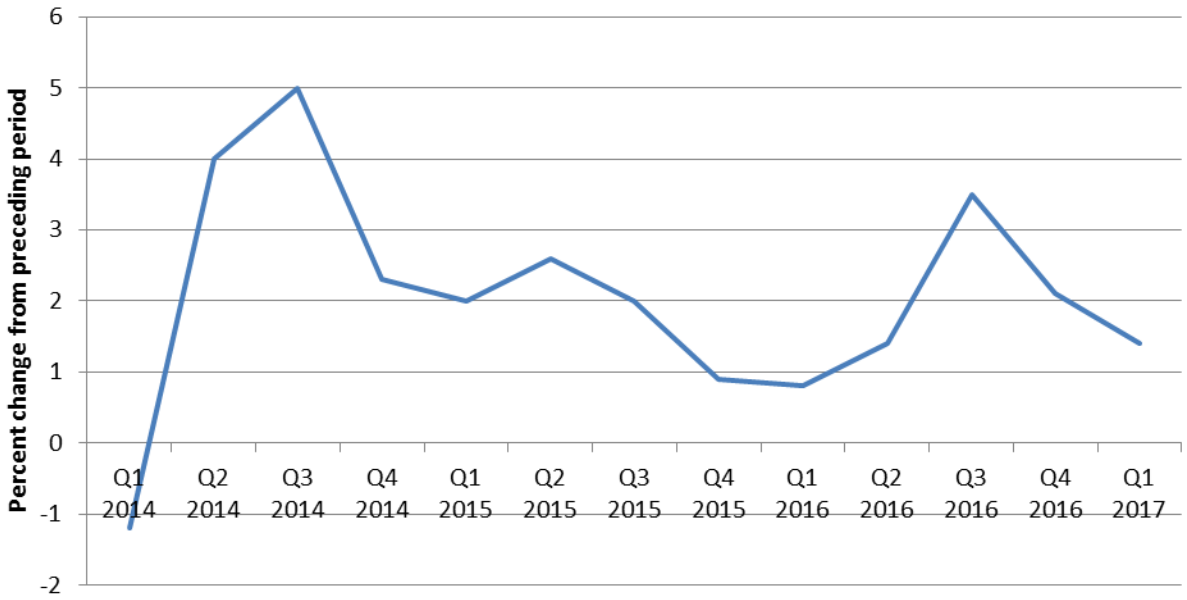
All four responding U.S. producers and 13 of 15 importers indicated that the market was not subject to business cycles or conditions of competition. Two importers reported that there have been changes in the business cycles or conditions of competition for TRBs since January 1, 2014. Specifically, importer *** reported that the TRB market is subject to demand changes within individual vertical market end use segments (e.g. construction, agriculture, heavy duty truck, etc.). It also stated that there have been fluctuations in demand from specific applications as well as fluctuations due to the general economy, which it characterized as "somewhat depressed" in 2016, especially in the second half, although it has recently seen some rebound. It continued that most end use markets also followed this trend, except the automotive market, which strengthened from January 2014 until early 2017. Petitioner stated that since 2014, automotive, light truck, and wind energy demand has increased, while heavy

[14] Conference transcript, pp. 18-19 (McCoughlin) and Petitioner's postconference brief, p. 24.

truck demand has declined, off-the-road has been in a period of soft demand, and general industrial demand has experienced some recovery.[15] Respondent Iljin stated that the U.S. market for TRBs is best characterized by two primary and distinct markets: automotive and industrial.[16]

Overall real GDP growth peaked in the third quarter of 2014, and has declined but remained positive through the first quarter of 2017 (figure II-1).

Figure II-1
TRBs: Real Gross Domestic Product, seasonally adjusted annual rates, January 2014-March 2017

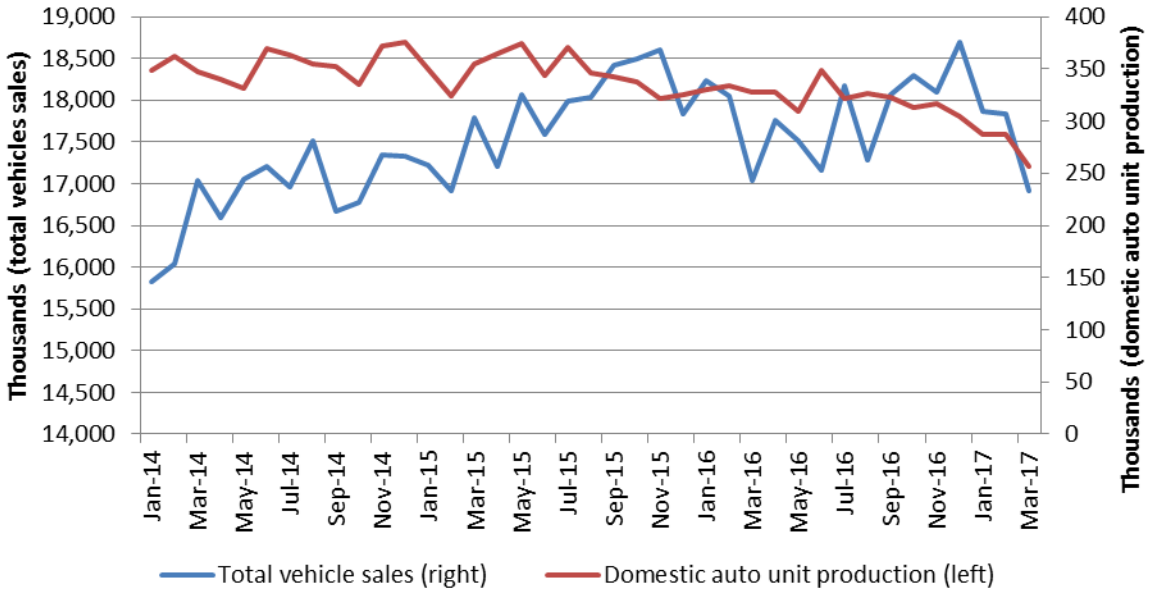


Source: Bureau of Economic Analysis, https://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm, accessed July 6, 2017.

During January 2014-March 2017, domestic auto production declined 27 percent while auto sales increased 7 percent (figure II-2).

[15] Petitioner's postconference brief, Answers to Staff questions #11, p. 1.
[16] Respondent Iljin's postconference brief, p. 6.

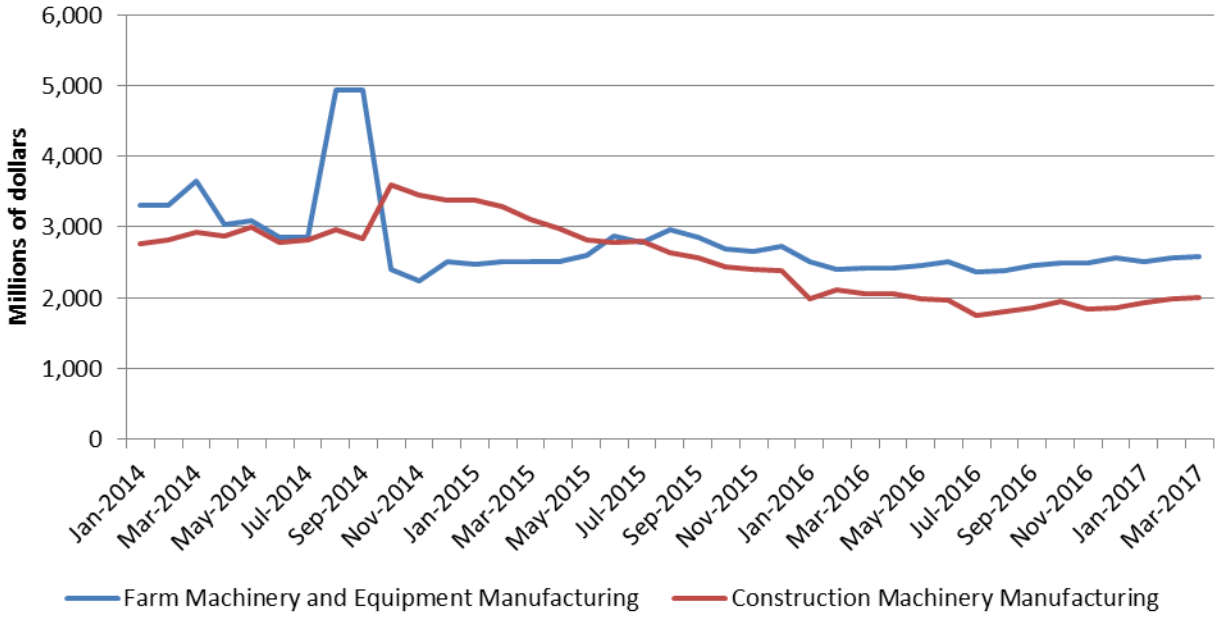
Figure II-2
TRBs: Domestic auto unit production and total vehicle sales, January 2014-March 2017



Source: Bureau of Economic Analysis, https://www.bea.gov/national/xls/gap_hist.xlsx, accessed July 6, 2017.

U.S. farm machinery and equipment manufacturing and construction machinery manufacturing fluctuated in late 2014, but has declined overall by 22 percent and 27 percent, respectively, during January 2014-March 2017 (figure II-3).

Figure II-3
TRBs: U.S. total farm machinery and equipment and construction machinery manufacturing, seasonally adjusted value of shipments, millions of dollars, January 2014-March 2017



Source: U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders, https://www.census.gov/manufacturing/m3/index.html, accessed July 6, 2017.

Demand trends

Most firms reported that U.S. demand for TRBs fluctuated since January 1, 2014 (table II-3). *** stated that given the wide array of end uses for TRBs, demand is affected by varying trends in different end use markets. *** stated that demand fluctuates with the economic cycle. Importer *** stated that the OEM market continues to grow. Importer *** stated that it anticipates that the market will continue to go towards "bearings inside hub assemblies", which will cause the market to decline.

Table II-3
TRBs: 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	1	3
Importers	3	2	2	5
Demand outside the United States				
U.S. producers	0	0	1	3
Importers	1	2	2	5

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

Substitute products

All four responding U.S. producers and 12 of 15 responding importers reported that there are no substitutes for TRBs. Reported substitutes for TRBs include ball bearings and cylindrical bearings for use in axle, transmission, wheels, and spindles. Other bearings may be

substituted for TRBs while an application is being engineered. However, once an application is engineered, other types of bearings can generally not be substituted for TRBs.[17]

Importer *** reported that the change in price for ball bearings can affect the price for TRBs because cheaper substitutes lead to the decrease in price.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported TRBs 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.). TRBs are produced to specific end-use applications and suppliers must go through a rigorous certification processes in order to sell TRBs for these end uses. Based on available data, staff believes that there is moderate degree of substitutability between domestically produced TRBs and TRBs imported from Korea.

Lead times

U.S. producers reported that TRBs are primarily produced-to-order while importers reported that TRBs are sold from inventory. U.S. producers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days. The remaining *** percent of their commercial shipments came from inventories, with lead times averaging *** days. Importers reported that *** percent of their commercial shipments were from U.S. inventories, with a lead time of 10 days, and *** percent were from foreign inventories, with a lead time of *** days. The remaining *** percent of their commercial shipments were produced-to-order, with a lead time of *** days.

Factors affecting purchasing decisions

Purchasers responding to lost sales and lost revenue allegations[18] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for TRBs. The major purchasing factors identified by firms include quality; manufacturing and engineering expertise (manufacturing capability, life cycle calculations, testing, samples, and engineering analysis); design specifications for customer application; technological competence; delivery performance; strategic relationship with the supplier; total cost (price, freight, packaging, and duties); and management commitment (sourcing agreements, flexibility, quote lead time, and terms and conditions).

Purchaser Dana stated that, in 2009 and 2010, it sourced a vast majority of its TRBs from Timken when Timken passed along a sudden price increase of between 20 and 30 percent on its TRBs in exchange for Dana to secure capacity. Because it did not have any qualified alternatives

[17] Conference transcript, p. 78 (Coughlin) and pp. 148-149 (Kreifels).

[18] This information is compiled from responses by purchasers identified by Petitioner Timken to the lost sales and lost revenue allegations. See Part V for additional information.

at the time, it had to pay the increase and was unable to pass this along to its customers. Since then, Dana undertook a major strategy shift, qualifying new suppliers for their commercial and light vehicle businesses so that it could return to market pricing and "never be put in a situation again of having one supplier hold the company hostage."[19] Supplier certification can take a minimum of 18 to 24 months and $200 to $300 thousand to qualify and validate a given supplier and their specific parts. After the supplier is qualified, Dana continues to monitor quality and product performance.[20]

Comparison of U.S.-produced and imported TRBs

In order to determine whether U.S.-produced TRBs can generally be used in the same applications as imports from Korea, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-4, most responding U.S. producers and importers reported that domestically produced TRBs and TRBs imported from Korea are "frequently" interchangeable. Factors affecting interchangeability include quality, design, delivery requirements, and ability to meet standards. Supplier certification requirements may also limit interchangeability. Producer *** stated that quality level of the TRB is typically a factor of raw material and/or manufacturing capability. Importer *** reported that Korean and Japanese TRBs are better quality than U.S.-produced TRBs and quality is a critical factor for auto transmissions. Importer *** stated that TRBs are mostly interchangeable for standardized items but not for some customized ones. Importer *** stated that Chinese bearings may not be the correct size or tolerance. *** stated that each *** part number must be validated for design and performance to the specific application and that, in some cases, the design is specific to one supplier. It continued that the TRBs it purchases are engineered parts which bear unique *** part numbers, and each part must go through a rigorous validation process before it may be purchased.[21]

[19] Conference transcript, pp. 109-110 (Schamp).

[20] Conference transcript, p. 107, p. 150 (Schamp).

[21] *** importer questionnaire narrative response to question III-19. *** provided an incomplete questionnaire response and is thus not included elsewhere in this report.

Table II-4
TRBs: Interchangeability between TRBs produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. Korea	0	2	0	0	1	7	2	0
Nonsubject countries comparisons:								
U.S. vs. China	0	1	1	0	1	6	3	1
U.S. vs. Japan	1	2	1	0	3	5	3	0
U.S. vs. nonsubject	1	0	2	0	2	4	4	1
Korea vs. China	0	1	1	0	1	4	2	0
Korea vs. Japan	0	1	1	0	2	5	1	0
Korea vs. nonsubject	0	1	1	0	1	5	1	0

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

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

Petitioner Timken stated that major Korean producers like Iljin and Schaeffler produce many of the same part numbers that Timken produces and that TRBs are completely interchangeable within part numbers.[22] Respondents note that if one is strictly looking at bore size, outer diameter size, and width, then part numbers are interchangeable with each other. However, there are more factors, such as material, profiling, finishing processes, and heat treatment, that may prohibit interchangeability within part numbers.[23] Respondents also stated that no bearing manufacturer would recommend interchanging cups and cones with competitors' cups and cones.[24]

In addition, producers, and importers were asked to assess how often differences other than price were significant in sales of TRBs from the United States, Korea, or nonsubject countries. As seen in table II-5, half of responding U.S. producers and importers reported that there are "sometimes" significant differences other than price that factor into sales of TRBs when comparing domestically produced TRBs and TRBs imported from Korea. Generally, these factors include availability, quality, design, and technical support. Importer *** stated that quality is more important than price.[25]

[22] Conference transcript, p. 20 (Coughlin).

[23] Conference transcript, p. 150 (Kreifels), p. 151 (Schamp).

[24] Conference transcript, p. 151 (Kriefels).

[25] Importer *** stated that there are a number of factors that impact the purchase of product other than price, typically based on the end use application and the subsequent requirements and that steel quality and dimension tolerance control are typically two factors that drive the performance of the TRB in an application.

Table II-5
TRBs: Significance of differences other than price between TRBs produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. Korea	0	1	1	0	2	2	5	1
Nonsubject countries comparisons:								
U.S. vs. China	0	1	2	0	2	3	6	0
U.S. vs. Japan	0	0	4	0	1	1	8	1
U.S. vs. nonsubject	0	1	2	0	2	2	6	1
Korea vs. China	0	0	2	0	0	1	5	0
Korea vs. Japan	0	1	1	0	0	1	6	0
Korea vs. nonsubject	0	0	2	0	0	0	6	0

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

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

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

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

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 15 firms based on information contained in the petition and industry research. Four firms provided usable data on their productive operations.[1] Staff believes that these responses represent the vast majority of U.S. production of TRBs.

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

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

Firm	Position on petition	Production location(s)	Share of production (percent)
Koyo	***	Orangeburg, SC Telford, TN	***
NSK	***	Ann Arbor, MI	***
NTN-Bower	***	Macomb, IL Hamilton, AL	***
Timken	Support	Altavista, VA North Canton, OH Bucyrus, OH Iron Station (Lincolnton), NC Honea Path, SC Gaffney, SC New Philadelphia, OH	***
Total			***

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

[1] A fifth firm, Amsted Rail Company, Inc., reported production of out-of-scope tapered roller bearings. Its data are included in appendix C, table C-2. Four companies, *** certified that they had not produced tapered roller bearings since January 1, 2014.

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

Table III-2
TRBs: U.S. producers' ownership, related and/or affiliated firms, and share of total production, since January 1, 2014

* * * * * * *

As indicated in table III-2, one U.S. producer is related to foreign producers of TRBs from Korea and no U.S. producers are related to U.S. importers of TRBs from Korea. In addition, as discussed in greater detail below, no U.S. producers directly import the subject merchandise or purchase the subject merchandise from U.S. importers.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2014. In addition, ***, Timken announced the closure of its Altavista, Virginia plant in 2016. Some of the Altavista production was moved to its Lincolnton, North Carolina plant. The closure was completed in ***.[2]

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

* * * * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. Domestic producers' production decreased by *** percent from 2014 to 2016, and was *** percent lower in January-March 2017 when compared to January-March 2016. Two of the four responding producers, ***, reported *** decreases in capacity, resulting in a slight overall capacity decrease of *** percent between 2014 and 2016. Capacity was *** percent higher in January-March 2017 than in January-March 2016. Capacity utilization for the industry decreased by *** percentage points during 2014-16, and was *** percentage points lower in January-March 2017 than in January-March 2016.

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

* * * * * * *

[2] Petition, pp. I-27-I-28; Petitioner's postconference brief, Staff Question-5; and staff correspondence with ***, July 28, 2017.

Figure III-1
TRBs: U.S. producers' production, capacity, and capacity utilization, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

Alternative products

No firms reported production of alternative products on the same equipment and machinery.

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

Table III-5 presents U.S. producers' U.S. shipments, export shipments, and total shipments.[3] U.S. shipments of complete bearings by value decreased in every year, declining by *** percent between 2014 and 2016, and were *** percent lower in January-March 2017 than in January-March 2016. The unit values decreased by *** percent during 2014-16, but were *** percent higher in January-March 2017 when compared to January-March 2016. U.S. producers' U.S. shipments accounted for the majority of total shipments (*** percent based on value in 2016). Two of the four responding firms reported export shipments, with ***. Exports decreased by *** percent based on value. All transfers to related firms were reported by ***, and accounted for *** during the period being examined.[4] All shipments of parts were reported by ***; exports of parts accounted for more than *** percent of all part shipments in each full and partial period.

Table III-5
TRBs: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

U.S. PRODUCERS' INVENTORIES

Table III-6 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.** The domestic industry's inventories of TRBs increased by *** percent during 2014-16, and were higher in January-March 2017 when compared to January-March 2016. *** accounted for the majority of ending inventories in each full and partial period.

---

[3] U.S. producers were asked to report separately any other in-scope parts (finished parts only, not including finished cages) that cannot be converted into bearing equivalents (*e.g.,* parts other than assemblies and cups). These data are presented separately in table III-5 as "Value of parts."

[4] ***.

Table III-6
TRBs: U.S. producers' inventories, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

U.S. PRODUCERS' IMPORTS AND PURCHASES

No U.S. producer directly imported TRBs from Korea. However, all four U.S. producers imported TRBs from nonsubject sources during the period for which data were collected. One U.S. producer (***) also reported purchases of imports of TRBs from nonsubject sources during the period examined.[5]

U.S. producers' imports of TRBs are presented in table III-7. *** reported importing small volumes to fill out product lines when needed. *** imported TRBs based on capacity and size limitations of its domestic plant. *** reported importing due to insufficient production capacity in the United States for specific bearings.

Table III-7
TRBs: U.S. producers' U.S. production, imports, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-8 shows U.S. producers' employment-related data. During 2014-16, all employment-related indicators decreased overall, with the exception of hourly wages and productivity. The number of production and related workers ("PRWs") decreased by *** percent between 2014 and 2016, but was *** percent higher in January-March 2017 when compared to January-March 2016. Hours worked and wages paid similarly decreased during 2014-16, by *** percent and *** percent respectively, but were higher in January-March 2017 than in January-March 2016. Conversely, hourly wages increased by *** percent between 2014 and 2016, while productivity increased by *** percent during the same period. Hourly wages were *** percent higher in January-March 2017 when compared to January-March 2016, while productivity was *** percent lower.

Table III-8
TRBs: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

[5] *** purchased *** units in 2016.

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 89 potential importers of subject TRBs, as well as to all U.S. producers of TRBs.[1] Usable questionnaire responses were received from 17 companies, representing 79.4 percent of U.S. imports of TRBs from Korea and 51.4 percent of total U.S. imports during 2016, based on value.[2] In light of the data coverage by the Commission's questionnaires, U.S. imports are based on adjusted official Commerce statistics.[3]

Table IV-1 lists all responding U.S. importers of TRBs from Korea and other sources, their locations, and their shares of U.S. imports (based on value), in 2016.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS statistical reporting numbers 8482.20.0040, 8482.20.0061, 8482.20.0070, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580 in 2016.

[2] One firm, ***, provided an incomplete questionnaire response. Four additional firms, ***, did not provide a questionnaire response but indicated that they imported TRBs and provided partial data.

[3] Import data presented in this report are based on official import statistics for HTS statistical reporting numbers 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580. Prior to July 2016, subject TRBs were imported under HTS statistical reporting numbers 8482.20.0060, 8482.20.0080, and 8482.99.1540, which covered product outside the scope of this investigation. Effective July 2016, HTS statistical reporting numbers 8482.20.0061, 8482.20.0081, and 8482.99.1550 were introduced to cover subject TRBs only. To make the data comparable, staff applied ratios to imports that entered prior to July 2016 under the broader HTS statistical reporting numbers, based on imports entering under the new HTS statistical reporting numbers for July 2016 to May 2017. In addition, bearing equivalents were calculated as one TRB cup and one TRB cone. The value of finished TRB parts (not including finished cages) entering under HTS statistical reporting number 8482.91.0050 are presented separately in the tables as "Value of parts."

Table IV-1
TRBs: U.S. importers by source, 2016

Firm	Headquarters	Share of imports by source (percent)				
		Korea (subject)	China	Japan	All other sources	All sources
Amsted	Chicago, IL	***	***	***	***	***
Consolidated Metco	Vancouver, WA	***	***	***	***	***
Federal-Mogul	Southfield, MI	***	***	***	***	***
HMS	Westlake, OH	***	***	***	***	***
Honda	Marysville, OH	***	***	***	***	***
Iljin	Novi, MI	***	***	***	***	***
Koyo	Greenville, SC	***	***	***	***	***
Mitsui	New York, NY	***	***	***	***	***
Nova	Powell, TN	***	***	***	***	***
NSK	Ann Arbor, MI	***	***	***	***	***
NTN	Mt. Prospect, IL	***	***	***	***	***
Powertech	West Point, GA	***	***	***	***	***
Sanyo	New York, NY	***	***	***	***	***
Schaeffler USA	Fort Mill, SC	***	***	***	***	***
Timken	North Canton, OH	***	***	***	***	***
Univance	Winchester, KY	***	***	***	***	***
ZWZ Bearing	City Of Industry, CA	***	***	***	***	***
Total		***	***	***	***	***

Note.—Shares of imports are based on value.
Note.--***.

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

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of TRBs from Korea and all other sources. Total U.S. imports, in terms of value, decreased overall by 13.4 percent during 2014-16, and were 9.3 percent lower in January-March 2017 than in January-March 2016. U.S. imports of subject TRBs from Korea, however, increased by 55.7 percent between 2014 and 2016, from $38.4 million in 2014 to $59.8 million in 2016, and were 51.0 percent higher in January-March 2017 when compared to January-March 2016. Average unit values from both subject and nonsubject sources decreased between 2014 and 2016, by 17.4 percent and 13.3 percent, respectively. Average unit values of imports from Korea were higher in January-March 2017 when compared to January-March 2016, while average unit values from nonsubject sources were lower during the same period. The ratio of subject imports to U.S. production increased during the period, and subject imports were equivalent to *** percent of U.S. production in 2016.

The leading nonsubject sources of imports were China and Japan, accounting for 22.7 percent and 35.1 percent of imports from nonsubject sources by value in 2016, respectively. As a share of total imports, China and Japan accounted for 19.6 percent and 30.3 percent in 2016, respectively.

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

Item	Calendar year			January to March	
	2014	2015	2016	2016	2017
	Value of complete bearings or bearing equivalents (1,000 dollars)				
U.S. imports from.--					
Korea (subject)	38,409	52,417	59,348	11,467	17,300
China	92,528	105,390	85,195	18,014	20,848
Japan	166,622	163,741	123,092	34,260	31,121
All other sources	187,100	195,774	156,412	48,732	33,239
Nonsubject sources	446,250	464,906	364,699	101,006	85,208
All import sources	484,659	517,323	424,047	112,472	102,508
	Value of parts (1,000 dollars)				
U.S. imports from.--					
Korea (subject)	---	---	452	---	14
China	17	27	10	3	13
Japan	15,970	12,358	8,407	2,381	1,724
All other sources	1,218	1,546	1,595	545	376
Nonsubject sources	17,205	13,931	10,011	2,930	2,113
All import sources	17,205	13,931	10,464	2,930	2,127
	Total value (bearings and parts) (1,000 dollars)				
U.S. imports from.--					
Korea (subject)	38,409	52,417	59,801	11,467	17,314
China	92,545	105,417	85,205	18,017	20,861
Japan	182,592	176,100	131,499	36,641	32,845
All other sources	188,318	197,320	158,007	49,277	33,615
Nonsubject sources	463,455	478,837	374,710	103,936	87,321
All import sources	501,864	531,254	434,511	115,402	104,635
	Quantity (1,000 bearings or bearing equivalents)				
U.S. imports from.--					
Korea (subject)	5,700	8,015	10,658	2,202	2,938
China	30,223	33,042	33,908	6,322	7,815
Japan	32,077	32,372	25,467	7,176	6,311
All other sources	15,706	17,270	14,115	3,655	3,397
Nonsubject sources	78,006	82,684	73,490	17,153	17,523
All import sources	83,707	90,699	84,147	19,355	20,461
	Unit value (dollars per bearing or bearing equivalent)				
U.S. imports from.--					
Korea (subject)	6.74	6.54	5.57	5.21	5.89
China	3.06	3.19	2.51	2.85	2.67
Japan	5.19	5.06	4.83	4.77	4.93
All other sources	11.91	11.34	11.08	13.33	9.78
Nonsubject sources	5.72	5.62	4.96	5.89	4.86
All import sources	5.79	5.70	5.04	5.81	5.01

Table continued on next page.

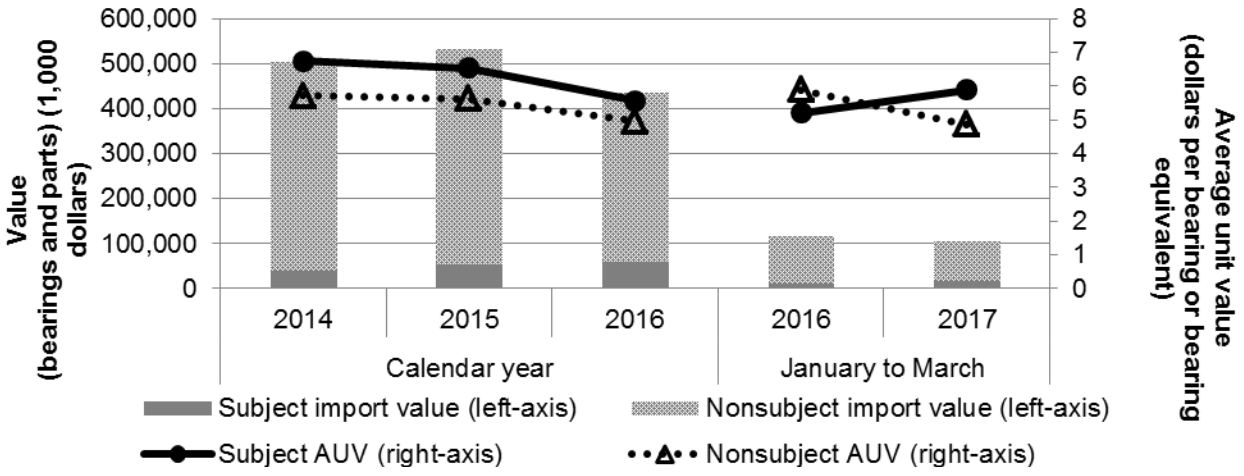
Table IV-2--Continued
TRBs: U.S. imports by source, 2014-16, January-March 2016, and January-March 2017

Item	Calendar year			January to March	
	2014	2015	2016	2016	2017
	Share of total value (percent)				
U.S. imports from.--					
Korea (subject)	7.7	9.9	13.8	9.9	16.5
China	18.4	19.8	19.6	15.6	19.9
Japan	36.4	33.1	30.3	31.8	31.4
All other sources	37.5	37.1	36.4	42.7	32.1
Nonsubject sources	92.3	90.1	86.2	90.1	83.5
All import sources	100.0	100.0	100.0	100.0	100.0
	Share of quantity (percent)				
U.S. imports from.--					
Korea (subject)	6.8	8.8	12.7	11.4	14.4
China	36.1	36.4	40.3	32.7	38.2
Japan	38.3	35.7	30.3	37.1	30.8
All other sources	18.8	19.0	16.8	18.9	16.6
Nonsubject sources	93.2	91.2	87.3	88.6	85.6
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production (percent)				
U.S. imports from.--					
Korea (subject)	***	***	***	***	***
China	***	***	***	***	***
Japan	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

Note.--Values are landed, duty-paid; quantities are derived from the HTS items that are believed to measure only complete bearings or bearing equivalents. Since TRBs are usually not sold as sets, the quantity data are believed to be less reliable than the value data. Unit values are calculated on the basis of complete bearings (and bearing equivalents) only. Ratio of imports to U.S. production are based on complete bearings or bearing equivalents only.

Source: Compiled from adjusted official Commerce statistics under HTS statistical reporting numbers 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1540, and 8482.99.1550.

Figure IV-1
TRBs: U.S. import value and unit values, 2014-16, January-March 2016, and January-March 2017



Note.--Unit values are calculated on the basis of complete bearings (and bearing equivalents) only.

Source: Compiled from adjusted official Commerce statistics under HTS statistical reporting numbers 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1540, and 8482.99.1550.

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[4] Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[5]

[4] 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)).

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

The petitions in this investigation were filed on June 28, 2017. Based on official Commerce statistics, imports from Korea accounted for 16.3 percent of total imports of TRBs by value (13.2 percent by quantity) during June 2016 through May 2017.[6]

APPARENT U.S. CONSUMPTION

Table IV-3 presents data on apparent U.S. consumption for TRBs. Apparent consumption decreased by *** percent and *** percent from 2014 to 2016 based on value and quantity respectively, and was lower in January-March 2017 when compared to January-March 2016.

Table IV-3
TRBs: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, 2014-16, January-March 2016, and January-March 2017

Item	Calendar year			January-March	
	2014	2015	2016	2016	2017
	Quantity (1,000 bearings or bearing equivalents)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from.--					
Korea (subject)	5,700	8,015	10,658	2,202	2,938
China	30,223	33,042	33,908	6,322	7,815
Japan	32,077	32,372	25,467	7,176	6,311
All other sources	15,706	17,270	14,115	3,655	3,397
Nonsubject sources	78,006	82,684	73,490	17,153	17,523
All import sources	83,707	90,699	84,147	19,355	20,461
Apparent U.S. consumption	***	***	***	***	***
	Total value (bearings and parts) (1,000 dollars)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from.--					
Korea (subject)	38,409	52,417	59,801	11,467	17,314
China	92,545	105,417	85,205	18,017	20,861
Japan	182,592	176,100	131,499	36,641	32,845
All other sources	188,318	197,320	158,007	49,277	33,615
Nonsubject sources	463,455	478,837	374,710	103,936	87,321
All import sources	501,864	531,254	434,511	115,402	104,635
Apparent U.S. consumption	***	***	***	***	***

Note.—Values include parts.

Source: Compiled from data submitted in response to Commission questionnaires and adjusted official Commerce statistics under HTS statistical reporting numbers 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.91.0050, 8482.99.1540, and 8482.99.1550.

[6] Official Commerce statistics were adjusted for June 2016. As described previously, staff applied ratios to imports that entered prior to July 2016 under the broader HTS statistical reporting numbers, based on imports entering under the new HTS statistical reporting numbers for July 2016 to May 2017.

U.S. MARKET SHARES

U.S. market share data are presented in table IV-4 and figure IV-2. On a value basis, the market shares of TRB imports from Korea exhibited a net increase, while those from nonsubject sources exhibited a net decrease. U.S. producers' TRB shipments maintained a relatively stable share of the U.S. market, other than in 2015.

Table IV-4
TRBs: U.S. consumption and market shares, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

Figure IV-2
TRBs: Apparent U.S. consumption, 2014-16, January - March 2016, and January - March 2017

* * * * * * *

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

TRBs are manufactured from steel scrap. The average price of scrap metal decreased by *** percent during January-December 2014, decreased by *** percent during January-December 2015, and increased by *** percent during January 2016 to March 2017 (figure V-1). Overall, scrap prices declined by *** percent from January 2014 to March 2017. Raw materials, as a share of the cost of goods sold, decreased from *** percent in 2014 to *** percent in 2016 before increasing to *** percent in January-March 2017.

Figure V-1
Steel scrap: Price index of Chicago No. 1 heavy melt scrap, monthly, January 2014-March 2017

* * * * * * *

Two responding U.S. producers and four responding importers reported that the price of raw materials decreased since January 1, 2014; two U.S. producers and 6 importers reported that the price fluctuated. Importer *** stated that the metal market index clause in contracts allow for price increases to adjust with steel price fluctuations. Importer *** stated that raw material price increases are passed through to its customers. Importer *** stated that raw material prices fluctuate with demand for steel and that global exchange rates also impact raw material pricing, if raw materials originate in a different country than where the TRBs are produced. It continued that, generally, small fluctuations are absorbed by producers while larger fluctuations are at least partly, if not fully, passed on to the customer.

Petitioners and respondents stated that contracts contain clauses that automatically adjust prices in response to changes in raw material costs.[1]

Transportation costs to the U.S. market

Transportation costs for TRBs shipped from Korea to the United States averaged 2.4 percent during 2016. These estimates were derived from official import data and represent the transportation and other charges on imports.[2]

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[1] Conference transcript, p. 77 and p. 81 (Ruel), p. 146 (Schuster), and Petitioner Timken's postconference brief, Answers to Staff questions, #3, p. 1.

[2] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2016 and then dividing by the customs value based on the HTS statistical reporting numbers 8482.20.0040, 8482.20.0061, 8482.20.0070, 8482.20.0081, 8482.91.0050, 8482.99.1550, and 8482.99.1580.

U.S. inland transportation costs

Most responding U.S. producers and importers reported that their customers typically arrange transportation. Two U.S. producers reported that their U.S. inland transportation costs are 3 percent while three importers reported costs of 2 to 14 percent.

PRICING PRACTICES

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, price lists, and other methods. As presented in table V-1, most U.S. producers and importers sell primarily on a contract basis and through transaction-by-transaction negotiations.

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

Method	U.S. producers	Importers
Transaction-by-transaction	3	7
Contract	3	8
Set price list	2	5
Other	2	4
Responding firms	4	14

[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.

As shown in table V-2, U.S. producers and importers reported selling most of their TRBs under long-term contracts in 2016.

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

* * * * * * *

U.S. producers' and importers' long-term contracts generally last 2 to 5 years. Two responding U.S. producers reported that their long-term contracts include price renegotiation and meet-or-release provisions and fix both quantity and price. Three responding importers have long-term contracts include price renegotiation and fix both price; two importers reported that their long-term contracts include meet-or-release provisions.

Petitioners and respondents stated that contracts may have "resourcing" clauses that allow the customer to change suppliers based on the inability to meet lower prices.[3] These clauses are uniquely negotiated with each customer.[4]

Responding U.S. purchasers identified various methods they use when purchasing TRBs. These methods include long-term sourcing contracts, scheduling agreements, and strategic sourcing through requests for quotation.

Sales terms and discounts

U.S. producers typically quote prices on an f.o.b. basis and responding importers quote prices on an f.o.b. or delivered basis. Two producers offer total volume discounts, one also offers quantity discounts, while two producers reported not offering discounts. Five responding importers do not offer discounts and four offer discounts based on market competitiveness and contract terms. ***.

U.S. producers *** reported sales terms of net 30 days and *** reported different sales terms based on the customer: ***.

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 TRB products shipped to unrelated U.S. customers during January 2014-March 2017.

Product 1.—13623X – TRB Cup (single row, outer diameter "OD" 2.717 inches, 0.727 inch width).

Product 2.—55437 – TRB Cup (single row, OD 4.375 inches, width 0.813 inch).

Product 3.—39520 – TRB Cup (single row, OD 4.4375 inches, width 0.9375 inch).

Product 4.—13687 – TRB Cone Assemblies (single row, 1.50 inch bore).

Product 5.—55200C – TRB Cone Assemblies (single row, 2 inch bore, width 1.0594 inch).

Product 6.—HM212049 – TRB Cone Assemblies (single row, 2.650 inches bore).

[3] Conference transcript, p. 43 (Drake), p. 146 (Schuster), pp. 146-147 (Dix), and p. 147 (Kreifels).
[4] Conference transcript, p. 77 (Ruel).

One U.S. producer (***) and one importer (***) provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[5] Pricing data reported by these firms accounted for approximately 0.8 percent of the value of U.S. producers' U.S. commercial shipments of TRBs and 11.1 percent of the value of U.S. shipments of subject imports from Korea during January 2014-March 2017. No pricing data was received for subject imports from Korea for products 1, 3, 4, and 6.

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.

Table V-3
TRBs: Weighted-average f.o.b. prices and quantities of domestic product 1, by quarters, January 2014-March 2017

* * * * * * *

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

* * * * * * *

Table V-5
TRBs: Weighted-average f.o.b. prices and quantities of domestic product 3, by quarters, January 2014-March 2017

* * * * * * *

Table V-6
TRBs: Weighted-average f.o.b. prices and quantities of domestic product 4, by quarters, January 2014-March 2017

* * * * * * *

Table V-7
TRBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 5, and margins of underselling/(overselling), by quarters, January 2014-March 2017

* * * * * * *

Table V-8
TRBs: Weighted-average f.o.b. prices and quantities of domestic product 6, by quarters, January 2014-March 2017

* * * * * * *

[5] 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.

Figure V-2
TRBs: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014-March 2017

* * * * * * *

Figure V-3
TRBs: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014-March 2017

* * * * * * *

Figure V-4
TRBs: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2014-March 2017

* * * * * * *

Figure V-5
TRBs: Weighted-average prices and quantities of domestic and imported product 4, by quarters, January 2014-March 2017

* * * * * * *

Figure V-6
TRBs: Weighted-average prices and quantities of domestic and imported product 5, by quarters, January 2014-March 2017

* * * * * * *

Figure V-7
TRBs: Weighted-average prices and quantities of domestic and imported product 6, by quarters, January 2014-March 2017

* * * * * * *

Price trends

In general, prices decreased during January 2014-March 2017. Table V-9 summarizes the price trends, by product and by country. As shown in the table, domestic prices ranged from a *** percent decrease to a *** percent increase during January 2014-March 2017 while import prices for both products for which data were collected ranged from *** to *** percent.

Table V-9
TRBs: Summary of weighted-average f.o.b. prices for products 1-6 from the United States and Korea

* * * * * * *

Price comparisons

As shown in table V-10, prices for TRBs imported from Korea were below those for U.S.-produced product in all 26 instances (*** units); margins of underselling ranged from *** to *** percent.

Table V-10
TRBs: Instances of underselling/overselling and the range and average of margins, by country, January 2014-March 2017

Source	Underselling				
	Number of quarters	Quantity[1] (units)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	0	0	---	---	---
Product 2	13	***	***	***	***
Product 3	0	0	---	---	---
Product 4	0	0	---	---	---
Product 5	13	***	***	***	***
Product 6	0	0	---	---	---
Total	26	***	***	***	***
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (units)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	0	0	---	---	---
Product 2	0	0	---	---	---
Product 3	0	0	---	---	---
Product 4	0	0	---	---	---
Product 5	0	0	---	---	---
Product 6	0	0	---	---	---
Total	0	0	---	---	---

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

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

LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of TRBs report purchasers where they experienced instances of lost sales or revenue due to competition from imports of TRBs from Korea during January 2014-March 2017. Two of three responding producers reported that they had to reduce prices, and one firm reported that it lost sales. *** submitted lost sales and lost revenue allegations, identifying 5 firms where *** both lost sales with respect to *** TRBs in 2016 and 2017.[6] Four of these allegations were during contract negotiations and one was with respect to ***.

[6] Producer *** stated that it has reduced prices to avoid losing sales on current programs and has lost business on future models that have been awarded to competitors, but did not complete the worksheet at the time of report issuance.

Staff contacted five purchasers and received responses from six purchasers.[7] Responding purchasers reported purchasing and importing $*** of TRBs during January 2014-March 2017 (table V-11).

Table V-11
TRBs: Purchasers' reported purchases and imports, by value, 2016

* * * * * * *

During 2016, responding firms purchased *** percent from U.S. producers, *** percent from Korea, and *** percent from nonsubject countries. None of the responding purchasers reported decreasing purchases from domestic producers, one reported increasing purchases, two reported no change, one reported fluctuating purchases, and two did not purchase any domestic product (table V-12).[8] *** stated that it increased purchases of domestic product due to expansion of market product portfolio. *** stated that purchases fluctuated because of sales variability across multiple segments and dual supply agreements.

Table V-12
TRBs: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	2	0	1	2	1
Korea	1	1	1	2	0
All other	1	1	1	2	2
Sources unknown	5	0	1	1	0

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

Two of the six responding purchasers reported that, since 2014, they had purchased imported TRBs from Korea instead of U.S.-produced product. Both of these purchasers reported that Korean import prices were lower than U.S.-produced product, but neither of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. These purchasers identified customer direction and familiarity with supplier as non-price reasons for purchasing imported rather than U.S.-produced product. Three purchasers reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from Korea; three reported that they did not know.

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

* * * * * * *

[7] Staff sent a lost sales lost revenue survey to ***, which submitted ***. Staff ***.

[8] None of the six responding purchasers indicated that they did not know the source of the TRBs they purchased.

In responding to the lost sales and lost revenue survey, some purchasers provided additional information on purchases and market dynamics. *** stated that it does not consider a purchase from a supplier of Korean-manufactured TRBs to be a "lost sale" for a U.S. manufacturer, such as Timken U.S. It stated that it operates within a global market place and that if did not purchase from a supplier of a Korean-manufactured TRB, the purchase likely would go to any number of suppliers around the world. *** continued that it is a significant purchaser of TRBs from Timken's sister company in India. It stated that it often purchases TRBs for a particular vehicle and application from a chosen supplier for the life of a program because it cannot change suppliers quickly due to an average 18-month period under which it conducts validation analysis and testing before changing a TRB supplier. *** stated that the supplier it has sourced for its next generation transmission program has a production location in Mexico with start of production planned for the beginning of 2018.

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Four U.S. producers (Timken, Koyo, NSK, and NTN-Bower) provided usable financial data on their TRB operations.[1] This section of the report presents data for the in-scope TRB operations including commercial sales, internal consumption, and transfers to related firms. Information on all tapered roller bearings (in-scope plus out-of-scope), is presented in appendix C, table C-2.[2]

OPERATIONS ON TRBS

Table VI-1 presents aggregate data on U.S. producers' operations in relation to TRBs over the fiscal years 2014-16, January-March 2016, and January-March 2017, while table VI-2 presents Timken's financial data for other TRB parts that could not be reported on a bearing equivalent basis.

Table VI-1
TRBs: Results of operations of U.S. producers, fiscal years 2014-16, January-March 2016, and January-March 2017

* * * * * * *

Table VI-2 presents data reported by Timken on it's operations on parts. The value of sales of parts was approximately *** percent of that firm's commercial sales of TRBs in 2016. The ***, of its shipments of parts were *** in 2016.

Table VI-2
TRBs: Results of operations on parts by Timken, fiscal years 2014-16, January-March 2016, and January-March 2017

* * * * * * *

Table VI-3 presents data on a firm-by-firm basis for TRBs.

Table VI-3
TRBs: Results of operations of U.S. producers, by firm, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

[1] Timken has a fiscal year that ends ***; Koyo and NSK have fiscal years that end ***. ***. Hence, differences between the trade and financial sections of the Commission's questionnaire are due to these timing differences.

[2] The financial data for all tapered roller bearings in table C-2 include ***.

Net sales quantity and value

Net sales of TRBs consisted of commercial sales, internal consumption, and transfers to related firms, which accounted for *** by value in 2016, respectively.[3] As shown in table VI-1, aggregate TRB sales quantity and value decreased from 2014 to 2016, and both were lower in interim 2017 compared with interim 2016. Changes in sales by *** accounted for the ***. ***.

The aggregate net sales unit value (per bearing or bearing equivalent) for TRBs decreased from $*** in 2014 to $*** in 2015 and was lower at $*** in 2016; however, it was higher at $*** in January-March 2017 than in January-March 2016 ($***). The firm-by-firm data shows a ***.

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 2015) and *** percent (in interim 2017) 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. One firm stated that raw material prices such as iron ore, coke, scrap, and the alloying materials used to make bearing-quality steel are lower currently than in 2014.[4] This may be a reflection of changes in steel input costs as ***. [5]

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 irregularly from 2014 to 2016 on a dollar basis (as well as on a per-unit basis), but increased irregularly as a share of sales and as a share of total COGS between the full year periods. 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 (table VI-1).

The last component of COGS, direct labor, decreased on a dollar basis from 2014 to 2016, but was higher in January-March 2017 compared to January-March 2016. As a share of COGS, direct labor was between *** percent (in 2014) and *** percent (in 2016 and was *** percent in January-March 2016 and *** percent in January-March 2017).[6]

The COGS to sales ratio increased *** from 2014 (*** percent) to 2016 (*** percent), and was higher in January-March 2017 (*** percent) than in January-March 2016 (*** percent).

Gross profit fell from $*** in 2014 to $*** in 2016, and was lower at a profit of $*** in January-March 2017 compared with $*** in January-March 2016. ***.

---

[3] ***.

[4] U.S. producers' questionnaire response of ***. Each of the responding U.S. producers purchased bearing quality steel; Timken spun off its steelmaking operations effective June 30, 2014. Postconference brief of Timken, Staff question-4, p. 1 and exh. 1.

[5] Postconference brief of Timken, exh. 1 ***, attachment K ***.

[6] ***.

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 (2014) and between *** percent (interim 2016) and *** percent (interim 2017). ***.[7]

Operating income fell from *** in 2014 to *** in 2016. The four firms together reported a lower operating profit in interim 2017 ($***) compared with the operating profit posted in interim 2016 ($***).[8]

Other expenses and net income or (loss)

Interest charges and other expenses, net of other income, fell from $*** in 2014 to $*** in 2015, and to $*** in 2016 and were lower in January-March 2017 ($***) than in January-March 2016 ($***). Data reported by *** accounted for the majority of other expenses and other income.

The industry's net income fell from $*** in 2014 to $*** in 2016, and was lower in January-March 2017 ($***) compared to January-March 2016 ($***). Net income as a ratio to sales was relatively steady at *** percent between 2014 and 2016 but lower in interim 2017 than in interim 2016. Cash flow (net income plus depreciation charges) declined from $*** in 2014 to $*** in 2016 and was $*** in interim 2017 compared with $*** in interim 2016. After deducting capital expenditures and R&D expenses from cash flow (in effect, calculating a proxy for free cash flow), cash flow increased irregularly between 2014 and 2016 but was lower in interim 2017 than in interim 2016; net cash flow as a percentage of sales increases from *** percent in 2014 to *** percent in 2016; it was *** percent in interim 2017 compared with *** percent in interim 2016.

Variance analysis

Given the wide variation in product mix, a variance analysis is not presented.

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-4 presents capital expenditures and research and development ("R&D") expenses by firm.

Table VI-4
TRBs: Capital expenditures and research and development expenses of U.S. producers, fiscal years 2014-16, January-March 2016, and January-March 2017

* * * * * * *

[7] ***.

[8] As shown in table VI-3, ***.

Timken stated that the focus of its capital expenditures and R&D expenses were ***, respectively.[9] Koyo responded that its capital expenditures were directed toward ***.[10]

ASSETS AND RETURN ON ASSETS

Table VI-5 presents data on the U.S. producers' total assets and the ratio of operating income or (loss) to total assets.

Table VI-5
TRBs: U.S. producers' total assets and return on assets, fiscal years 2014-16, January-March 2016, and January-March 2017

* * * * * * *

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of TRBs to describe any actual or potential negative effects of imports of TRBs from Korea on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-6 presents a tally of U.S. producers' responses and table VI-7 provides the narrative responses.

Table VI-6
TRBs: Actual and anticipated negative effects of imports on investment and growth and development since January 1, 2014

* * * * * * *

Table VI-7
TRBs: Narrative responses by U.S. producers regarding actual and anticipated negative effects of imports from Korea on investment, growth, and development since January 1, 2014

* * * * * * *

[9] U.S. producers' questionnaire response of ***.
[10] U.S. producers' questionnaire response of ***.

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 KOREA

The Commission issued foreign producers' or exporters' questionnaires to 35 firms believed to produce and/or export TRBs from Korea.[3] Bearing Art and Schaeffler submitted usable responses to the Commission's questionnaire. These firms' exports to the United States accounted for virtually all U.S. imports of TRBs from Korea in 2016. According to estimates requested of the responding Korean producers, the production of TRBs in Korea reported in Part VII accounts for approximately *** percent of overall production of TRBs in Korea. Table VII-1 presents information on the TRB operations of the responding producers and exporters in Korea.

Table VII-1
TRBs: Summary data for producers in Korea, 2016

* * * * * * *

Changes in operations

As presented in table VII-2, producers in Korea reported several operational and organizational changes since January 1, 2014.

Table VII-2
TRBs: Korean producers' reported changes in operations, since January 1, 2014

* * * * * * *

Operations on TRBs

The Commission asked Korean producers to identify any production constraints. Responding producers did not report any such constraints. Responding producers also did not report any anticipated changes in the character of their operations. Table VII-3 presents information on the TRB operations of the responding producers and exporters in Korea.

Table VII-3
TRBs: Data for producers in Korea, 2014-16, January-March 2016, January-March 2017, and projected 2017 and 2018.

* * * * * * *

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

Reported capacity increased by *** percent from 2014-16, which is consistent with Korean producers' reported expansions. Capacity was *** percent lower in January-March 2017 than in January-March 2016. This was due to ***. Exports to the United States increased by *** percent between 2014 and 2016, and were *** percent higher in January-March 2017 when compared to January-March 2016. Exports to other markets also increased, rising by *** percent during 2014-16, and were *** percent higher in January-March 2017 than in January-March 2016. Korean producers' total home market shipments as a share of total shipments decreased in each full and partial year during the period examined, and ranged between *** and *** percent. Conversely, Korean producers' total exports as a share of total shipments increased in each full and partial year during the period examined, and ranged between *** and *** percent

Alternative products

As shown in table VII-4, *** reported producing other products on the same equipment and machinery used to produce TRBs. These non-TRB products accounted for *** of production by ***. The firm reported producing ***.

Table VII-4
TRBs: Korean producers' overall capacity and production on the same equipment as subject production, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

Exports

Table VII-5 presents Korean global exports for HTS subheading 8482.20, "tapered roller bearings, including cups and assemblies," which includes subject TRBs, as reported in Global Trade Atlas ("GTA"). According to GTA, the United States was the top export market for tapered roller bearings, including cups and assemblies, from Korea in 2016, accounting for 35.0 percent, followed by China and Germany, accounting for 18.7 percent and 10.5 percent, respectively.

Table VII-5
Tapered roller bearings, including cups and assemblies: Korean exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Value (1,000 dollars)		
Korea exports to the United States	39,069	59,645	60,605
Korea exports to other major destination markets.--			
China	14,299	12,428	32,398
Germany	50,073	18,657	18,236
Turkey	7,372	10,488	11,579
Japan	8,451	9,906	10,379
Brazil	642	808	6,394
Thailand	316	1,302	5,909
Mexico	1,330	1,566	5,788
India	2,896	4,554	5,404
All other destination markets	19,901	15,006	16,256
Total Korea exports	144,350	134,359	172,949
	Share of value (percent)		
Korea exports to the United States	27.1	44.4	35.0
Korea exports to other major destination markets.--			
China	9.9	9.2	18.7
Germany	34.7	13.9	10.5
Turkey	5.1	7.8	6.7
Japan	5.9	7.4	6.0
Brazil	0.4	0.6	3.7
Thailand	0.2	1.0	3.4
Mexico	0.9	1.2	3.3
India	2.0	3.4	3.1
All other destination markets	13.8	11.2	9.4
Total Korea exports	100.0	100.0	100.0

Source: Official export statistics under HS subheading 8482.20, as reported by Korean Customs in the IHS/GTA database, accessed July 14, 2017.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-6 presents data on U.S. importers' reported inventories of TRBs. Inventories of subject imports more than doubled between 2014 and 2016, and were *** percent higher in January-March 2017 than in January-March 2016. The ratio of importers' inventories to total shipments of subject imports ranged from *** percent and *** percent during the period for which data were collected, while the ratio of inventories to total shipments of nonsubject imports ranged from *** percent and *** percent.

Table VII-6
TRBs: U.S. importers' inventories, 2014-16, January-March 2016, and January-March 2017

* * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of TRBs from Korea after March 31, 2017. Fifteen of 17 responding importers indicated that they had arranged such imports. These data are presented in table VII-7.

Table VII-7
TRBs: Arranged imports, April 2017 through March 2018

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

There are no known antidumping or countervailing duty orders on TRBs in third-country markets.

INFORMATION ON NONSUBJECT COUNTRIES

Global demand for all bearings was forecasted to grow by *** percent annually through 2021 to $*** driven by increased demand for bearings in automobiles and industrial manufacturing.[4] Production in the Asia-Pacific region is expected to post the strongest sales growth due to increasing demand for automobiles and industrial machinery. The following six companies account for 60 percent of global bearing production: (1) SKF, Inc., a Swedish multinational corporation with over 48,500 employees and production facilities around the world.; (2) Schaeffler, a German-based multinational corporation that operates several large Korean bearing producer brands (LUK, INA, FAG); (3) Timken, which is based in the United States; (4) NSK, a Japan-based multinational corporation that as of 2009, operates a bearing plant in Changwon, Korea; (5) NTN, based in Japan, and launched a joint venture in 2010 with a Korean partner to form the Seohan-NTN Bearing Company, which reportedly produces bearings for wind turbines; and (6) JTEKT, based in Japan, and operates a plant in Korea which is known as Koyo Jico Korea Co. Ltd. An additional 20 percent of global production comes from Chinese producers (who sell 80 percent of their merchandise in Asia; 10 percent Europe; 7 percent Americas). The last 20 percent are smaller regional producers.[5]

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[4] Kalyani, Darshan. *IBIS World Industry Report 33299b*. "Ball Bearing Manufacturing in the US." May 2016.

[5] SKF's investor website, accessed July 28, 2017, www.skf.com/group/investors/bearings-market.

Tables VII-8, VII-9, and VII-10 present global export data as well as exports from China and Japan, which were the largest nonsubject sources of TRBs in the United States. The value of exports of total "tapered roller bearings, including cups and assemblies," which includes subject TRBs, decreased 18.6 percent during 2014-16 (table VII-8). The total value of global exports declined from $5 billion to $4 billion during 2014-16. Korea is the eighth largest exporter of tapered roller bearings, including cups and assemblies, with a 4.3 percent share of global export values in 2016 (table VII-8). The largest exporters of tapered roller bearings, including cups and assemblies, in 2016 were, in descending order of magnitude: Japan, Germany, the United States, China, and France.

From 2014 to 2016, the value of exports of tapered roller bearings, including cups and assemblies, from China decreased from $490 million to $450 million. However, global exports declined faster and resulted in an overall share increase, from 9.9 percent in 2014 to 11.1 percent in 2016 (table VII-9).

From 2014 to 2016, the value of exports of tapered roller bearings, including cups and assemblies, from Japan decreased from $656 million to $600 million. Despite the decline in value, Japan's share of value of global tapered roller bearing exports, including cups and assemblies, exports increased from 13.2 percent to 14.8 percent during 2014-16 (table VII-10).

Table VII-8

Tapered roller bearings, including cups and assemblies: Global exports by exporter, 2014-16

Exporter	Calendar year		
	2014	2015	2016
	Value (1,000 dollars)		
United States	562,485	541,621	466,872
Korea	144,350	134,359	172,949
All other major reporting exporters.--			
China	490,154	462,439	450,096
Japan	656,082	621,763	600,215
Germany	746,275	598,920	584,183
France	392,356	354,395	324,479
Romania	199,985	187,984	209,038
Austria	236,989	176,424	177,785
South Korea	144,350	134,359	172,949
India	129,677	134,425	123,851
Italy	129,042	96,609	97,677
Poland	102,955	93,152	96,814
All other exporters	1,034,042	779,602	568,916
Total global exports	4,968,740	4,316,052	4,045,824
	Share of value (percent)		
United States	11.3	12.5	11.5
Korea	2.9	3.1	4.3
All other major reporting exporters.--			
China	9.9	10.7	11.1
Japan	13.2	14.4	14.8
Germany	15.0	13.9	14.4
France	7.9	8.2	8.0
Romania	4.0	4.4	5.2
Austria	4.8	4.1	4.4
South Korea	2.9	3.1	4.3
India	2.6	3.1	3.1
Italy	2.6	2.2	2.4
Poland	2.1	2.2	2.4
All other exporters	20.8	18.1	14.1
Total global exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8482.20 as reported in the IHS/GTA database, accessed July 14, 2017.

Table VII-9
Tapered roller bearings, including cups and assemblies: Exports from China by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Value (1,000 dollars)		
Exports from China to the United States	77,130	84,537	71,285
Exports from China to other major destination markets.--			
France	35,639	27,180	33,612
Brazil	27,006	27,226	28,567
Mexico	17,678	23,311	22,758
India	29,115	23,697	20,923
Italy	24,080	21,081	20,195
Germany	26,629	22,938	18,952
Japan	20,007	16,451	17,141
Iran	21,093	12,184	15,941
All other destination markets	211,777	203,833	200,723
Total exports from China	490,154	462,439	450,096
	Share of value (percent)		
Exports from China to the United States	15.7	18.3	15.8
Exports from China to other major destination markets.--			
France	7.3	5.9	7.5
Brazil	5.5	5.9	6.3
Mexico	3.6	5.0	5.1
India	5.9	5.1	4.6
Italy	4.9	4.6	4.5
Germany	5.4	5.0	4.2
Japan	4.1	3.6	3.8
Iran	4.3	2.6	3.5
All other destination markets	43.2	44.1	44.6
Total exports from China	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8482.20 as reported by Chinese Customs in the IHS/GTA database, accessed July 14, 2017.

Table VII-10

Tapered roller bearings, including cups and assemblies: Exports from Japan by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Value (1,000 dollars)		
Exports from Japan to the United States	118,132	115,070	103,093
Exports from Japan to other major destination markets.--			
China	110,420	111,086	113,160
Germany	92,004	73,860	67,312
Netherlands	53,919	46,684	43,784
Thailand	24,205	30,255	34,391
Indonesia	34,060	30,580	33,344
Korea South	34,193	34,843	30,022
Singapore	36,573	32,675	26,619
Panama	20,263	19,704	18,427
All other destination markets	132,312	127,006	130,063
Total exports from Japan	656,082	621,763	600,215
	Share of value (percent)		
Exports from Japan to the United States	18.0	18.5	17.2
Exports from Japan to other major destination markets.--			
China	16.8	17.9	18.9
Germany	14.0	11.9	11.2
Netherlands	8.2	7.5	7.3
Thailand	3.7	4.9	5.7
Indonesia	5.2	4.9	5.6
Korea South	5.2	5.6	5.0
Singapore	5.6	5.3	4.4
Panama	3.1	3.2	3.1
All other destination markets	20.2	20.4	21.7
Total exports from Japan	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 8482.20 as reported by Japanese Customs in the IHS/GTA database, accessed July 14, 2017.

APPENDIX A

FEDERAL REGISTER NOTICES

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

Citation	Title	Link
82 FR 31067, July 5, 2017	*Tapered Roller Bearings From Korea; Institution of Antidumping Duty Investigation and Scheduling of Preliminary Phase Investigation*	https://www.gpo.gov/fdsys/pkg/FR-2017-07-05/pdf/2017-14058.pdf
82 FR 34477, July 25, 2017	*Certain Tapered Roller Bearings From the Republic of Korea: Initiation of Less-Than-Fair-Value Investigation*	https://www.gpo.gov/fdsys/pkg/FR-2017-07-25/pdf/2017-15563.pdf

APPENDIX B

CALENDAR OF THE PUBLIC STAFF CONFERENCE

CALENDAR OF PUBLIC STAFF CONFERENCE

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

Subject: Tapered Roller Bearings from Korea

Inv. No.: 731-TA-1380 (Preliminary)

Date and Time: July 19, 2017 - 9:30 a.m.

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

OPENING REMARKS:

Petitioner (**Terence P. Stewart**, Stewart and Stewart)
Respondents (**Max F. Schutzman**, Grunfeld Desiderio Lebowitz Silverman & Klestadt LLP)

In Support of the Imposition of Antidumping Duty Order:

Stewart and Stewart
Washington, DC
on behalf of

The Timken Company

Christopher A. Coughlin, Executive Vice President, Group President, The Timken Company

Philip D. Fracassa, Executive Vice President, Chief Financial Officer, The Timken Company

Brian J. Ruel, Vice President – Americas, The Timken Company

Michael A. Discenza, Vice President *and* Group Controller, The Timken Company

Brian T. Strunck, General Manager, Sales, Global Commercial Vehicle, The Timken Company

Terence P. Stewart)
Elizabeth J. Drake) – OF COUNSEL
Philip A. Butler)

In Opposition to the Imposition of
Antidumping Duty Order:

Grunfeld Desiderio Lebowitz Silverman & Klestadt LLP
Washington, DC
on behalf of

Schaeffler Korea Corporation
Schaeffler Group U.S.A. (collectively, "Schaeffler")

Harald L. Schuster, Director – Sales, Transmission Applications & Chassis Systems, Schaeffler

Brian Kreifels, Regional Sales Manager – Engineering Sales, Schaeffler

Timothy Shalosky, Accounting Consultant, Schaeffler

Sebastian Brand, Director – Finance Strategy, Process & Infrastructure – Americas, Schaeffler

Robert E. Wick, III, General Counsel – North American Division, Schaeffler

James P. Dougan, Vice President, Economic Consulting Services LLC

Parker Sultzer, Research Assistant, Economic Consulting Services LLC

Max F. Schutzman)
Kavita Mohan) – OF COUNSEL
Jordan C. Kahn)

Hogan Lovells US LLP
Washington, DC
on behalf of

Bearing Art Corporation
Iljin USA Corporation

John H. Dix, President, Iljin USA Corporation

Craig A. Lewis) – OF COUNSEL

NON-PARTY APPEARANCE:

Brinks Gilson & Lione
Washington, DC
on behalf of

Dana Incorporated

Steve Schamp, Senior Purchasing Manager, Dana Incorporated

Lyle Vander Schaaf) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

Petitioner (**Elizabeth J. Drake**, Stewart and Stewart)
Respondents (**Craig A. Lewis**, Hogan Lovells US LLP)

-END-

APPENDIX C

SUMMARY DATA

In-scope TRBs

Table C-1

TRBs: Summary data concerning the U.S. market for in-scope TRBs, 2014-16, January to March 2016, and January to March 2017

(Quantity=1,000 bearings or bearing equivalents; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per bearing or bearing equivalent; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to March		Calendar year			Jan-Mar
	2014	2015	2016	2016	2017	2014-16	2014-15	2015-16	2016-17
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Korea	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Korea	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
Korea									
Quantity	5,700	8,015	10,658	2,202	2,938	87.0	40.6	33.0	33.4
Value	38,409	52,417	59,801	11,467	17,314	55.7	36.5	14.1	51.0
Unit value (fn3)	$6.74	$6.54	$5.57	$5.21	$5.89	(17.4)	(2.9)	(14.9)	13.1
Ending inventory quantity	***	***	***	***	***	***	***	***	***
China									
Quantity	30,223	33,042	33,908	6,322	7,815	12.2	9.3	2.6	23.6
Value	92,545	105,417	85,205	18,017	20,861	(7.9)	13.9	(19.2)	15.8
Unit value (fn3)	$3.06	$3.19	$2.51	$2.85	$2.67	(17.9)	4.2	(21.2)	(6.4)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Japan									
Quantity	32,077	32,372	25,467	7,176	6,311	(20.6)	0.9	(21.3)	(12.0)
Value	182,592	176,100	131,499	36,641	32,845	(28.0)	(3.6)	(25.3)	(10.4)
Unit value (fn3)	$5.19	$5.06	$4.83	$4.77	$4.93	(6.9)	(2.6)	(4.4)	3.3
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All other sources									
Quantity	15,706	17,270	14,115	3,655	3,397	(10.1)	10.0	(18.3)	(7.1)
Value	188,318	197,320	158,007	49,277	33,615	(16.1)	4.8	(19.9)	(31.8)
Unit value (fn3)	$11.91	$11.34	$11.08	$13.33	$9.78	(7.0)	(4.8)	(2.2)	(26.6)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources									
Quantity	78,006	82,684	73,490	17,153	17,523	(5.8)	6.0	(11.1)	2.2
Value	463,455	478,837	374,710	103,936	87,321	(19.1)	3.3	(21.7)	(16.0)
Unit value (fn3)	$5.72	$5.62	$4.96	$5.89	$4.86	(13.3)	(1.7)	(11.7)	(17.4)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Total imports									
Quantity	83,707	90,699	84,147	19,355	20,461	0.5	8.4	(7.2)	5.7
Value	501,864	531,254	434,511	115,402	104,635	(13.4)	5.9	(18.2)	(9.3)
Unit value (fn3)	$5.79	$5.70	$5.04	$5.81	$5.01	(13.0)	(1.5)	(11.6)	(13.8)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***
Capacity utilization (fn1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value (fn3)	***	***	***	***	***	***	***	***	***
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value (fn3)	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***	***	***	***	***
Hourly wages (dollars)	***	***	***	***	***	***	***	***	***
Productivity (bearings or bearing equivalents per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***
Net sales: (fn4)									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***
Unit net income or (loss)	***	***	***	***	***	***	***	***	***
COGS/sales (fn1)	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***
Net income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--***.
fn3.--Unit values are calculated on the basis of complete bearings (and bearing equivalents) only, while reported total values include the value of parts that do not have a bearing equivalent quantity.
fn4.--The financial data does not include the value of TRB parts reported by ***. The value of parts was equivalent to *** percent of net sales in 2016 and represent *** primarily.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics as described in part IV.

All TRBs

Table C-2
TRBs: Summary data concerning the U.S. market for all TRBs, 2014-16, January to March 2016, and January to March 2017
(Quantity=1,000 bearings or bearing equivalents; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per bearing or bearing equivalent; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to March		Calendar year			Jan-Mar
	2014	2015	2016	2016	2017	2014-16	2014-15	2015-16	2016-17
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Korea subject	***	***	***	***	***	***	***	***	***
Korea nonsubject	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Korea subject	***	***	***	***	***	***	***	***	***
Korea nonsubject	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
Koea subject									
Quantity	5,700	8,015	10,658	2,202	2,938	87.0	40.6	33.0	33.4
Value	38,409	52,417	59,801	11,467	17,314	55.7	36.5	14.1	51.0
Unit value (fn3)	$6.74	$6.54	$5.57	$5.21	$5.89	(17.4)	(2.9)	(14.9)	13.1
Korea nonsubject									
Quantity	2,435	2,514	970	276	252	(60.2)	3.3	(61.4)	(8.9)
Value	32,324	28,616	11,522	3,515	1,578	(64.4)	(11.5)	(59.7)	(55.1)
Unit value (fn3)	$12.68	$11.01	$10.91	$11.93	$5.07	(14.0)	(13.1)	(1.0)	(57.5)
China									
Quantity	32,910	36,995	38,891	7,489	8,639	18.2	12.4	5.1	15.4
Value	117,750	134,561	110,085	23,140	25,954	(6.5)	14.3	(18.2)	12.2
Unit value (fn3)	$3.44	$3.53	$2.75	$3.02	$2.89	(20.1)	2.9	(22.3)	(4.1)
Japan									
Quantity	33,297	33,731	29,186	7,434	7,675	(12.3)	1.3	(13.5)	3.2
Value	263,940	241,531	195,175	50,627	51,074	(26.1)	(8.5)	(19.2)	0.9
Unit value (fn3)	$5.85	$5.72	$5.36	$5.40	$5.33	(8.5)	(2.4)	(6.3)	(1.4)
All other sources									
Quantity	20,326	20,766	16,893	4,191	4,174	(16.9)	2.2	(18.7)	(0.4)
Value	322,999	324,668	274,136	76,216	69,410	(15.1)	0.5	(15.6)	(8.9)
Unit value (fn3)	$14.73	$14.33	$15.19	$17.02	$15.57	3.2	(2.7)	6.0	(8.5)
Nonsubject sources									
Quantity	88,969	94,007	85,940	19,390	20,740	(3.4)	5.7	(8.6)	7.0
Value	737,013	729,376	590,918	153,498	148,015	(19.8)	(1.0)	(19.0)	(3.6)
Unit value (fn3)	$7.17	$6.90	$6.17	$7.09	$6.37	(14.0)	(3.8)	(10.6)	(10.1)
Total imports									
Quantity	94,669	102,022	96,598	21,592	23,678	2.0	7.8	(5.3)	9.7
Value	775,422	781,794	650,718	164,964	165,329	(16.1)	0.8	(16.8)	0.2
Unit value (fn3)	$7.15	$6.87	$6.10	$6.31	$6.71	(14.6)	(3.8)	(11.2)	6.3
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***
Capacity utilization (fn1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value (fn3)	***	***	***	***	***	***	***	***	***
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value (fn3)	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***	***	***	***	***
Hourly wages (dollars)	***	***	***	***	***	***	***	***	***
Productivity (bearings or bearing equivalents per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***
Net sales:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***
Unit net income or (loss)	***	***	***	***	***	***	***	***	***
COGS/sales (fn1)	***	***	***	***	***	***	***	***	***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***
Net income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--***.
fn3.--Unit values are calculated on the basis of complete bearings (and bearing equivalents) only, while reported total values include the value of parts that do not have a bearing equivalent quantity.
fn4.--The financial data does not include the value of TRB parts reported by ***. The value of parts was equivalent to *** percent of net sales in 2016 and represent *** primarily.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics using the following HTS statistical reporting numbers: HTS numbers reported as a complete bearing or set to Customs (8482.20.0020, 8482.20.0030, 8482.20.0040, 8482.20.0060, 8482.20.0061, 8482.20.0064, 8482.20.0067, 8483.20.4080, and 8483.20.8080); HTS numbers that could be coverted into bearing equivalents, which were typically cups or cones of a complete bearing representing approximately one half of a complete bearing (8482.20.0070, 8482.20.0080, 8482.20.0081, 8482.20.0090, 8482.99.1540, 8482.99.1550, and 8482.99.1570), and other parts HTS numbers that could not be

APPENDIX D

NONSUBJECT COUNTRY PRICE DATA

One importer (***) reported price data for China for product 6 and one importer (***) reported price data for Japan for products 3 and 4.[1] Price data reported by these firms accounted for *** percent of the value of U.S. commercial shipments from China and *** percent of the value of U.S. commercial shipments from Japan during January 2014-March 2017. These price items and accompanying data are comparable to those presented in tables V-5, V-6 and V-8. Price and quantity data for China and Japan 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 product imported from China were lower than prices for U.S.-produced product in *** instances. In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Japan were lower than prices for U.S.-produced product in *** instances. There were *** comparisons of nonsubject country pricing data with subject country pricing data. A summary of price differentials is presented in table D-4.

Table D-1

TRBs: Weighted-average f.o.b. prices and quantities of imported product 3, by quarters, January 2014-March 2017

* * * * * * *

Table D-2

TRBs: Weighted-average f.o.b. prices and quantities of imported product 4, by quarters, January 2014-March 2017

* * * * * * *

Table D-3

TRBs: Weighted-average f.o.b. prices and quantities of imported product 6, by quarters, January 2014-March 2017

* * * * * * *

Figure D-1

TRBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by quarters, January 2014-March 2017

* * * * * * *

[1] Importer *** reported one quarter of price data for China that was ***. This data point is not included in the data presented in table D-3.

Figure D-2

TRBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4, by quarters, January 2014-March 2017

* * * * * * *

Figure D-3

TRBs: Weighted-average f.o.b. prices and quantities of domestic and imported product 6, by quarters, January 2014-March 2017

* * * * * * *

Table D-4

TRBs: Summary of underselling/(overselling), by country, January 2014-March 2017

* * * * * * *