Non-Refillable Steel Cylinders from India

Investigation Nos. 701-TA-689 and 731-TA-1618 (Preliminary)

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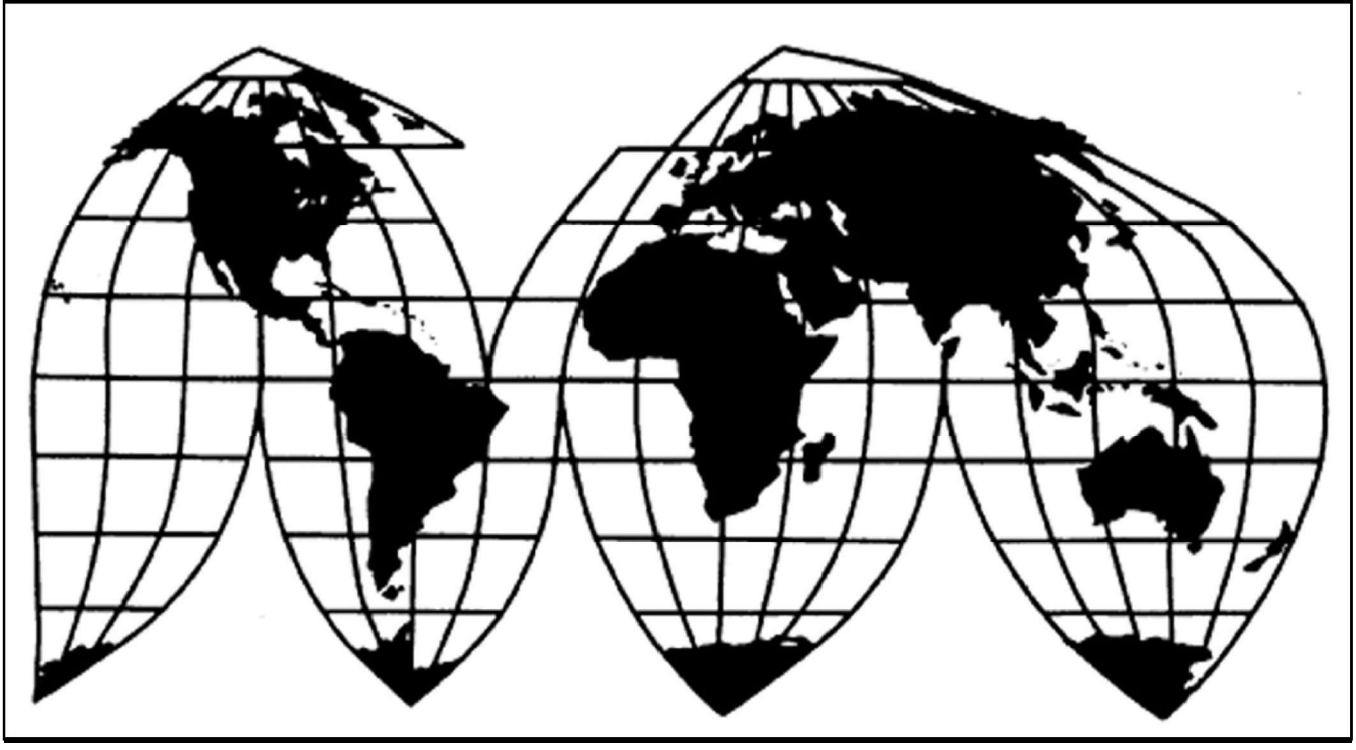
U.S. International Trade Commission



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Note.—Information that would reveal confidential operations of individual concerns may not be published. Such information is identified by brackets in confidential reports and is deleted and replaced with asterisks (***) in public reports.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-689 and 731-TA-1618 (Preliminary)

Non-Refillable Steel Cylinders from India

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of non-refillable steel cylinders ("NRSC") from India, provided for in subheading 7311.00.00 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value ("LTFV") and to be subsidized by the government of India.[2]

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

BACKGROUND

On April 27, 2023, Worthington Industries, Columbus, Ohio, filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of NRSC from India and LTFV

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

[2] 88 FR 33571 (May 24, 2023); 88 FR 33580 (May 24, 2023).

imports of NRSC from India. Accordingly, effective April 27, 2023, the Commission instituted countervailing duty investigation No. 701-TA-689 and antidumping duty investigation No. 731-TA-1618 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of May 3, 2023 (88 FR 27920). The Commission conducted its conference on May 18, 2023. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of non-refillable steel cylinders ("NRSC") from India that are allegedly sold in the United States at less than fair value ("LTFV") and subsidized by the government of India.

I. The Legal Standard for Preliminary Determinations

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

II. Background

Worthington Industries, Inc. ("Worthington" or "Petitioner"), the sole known U.S. producer of NRSC, filed the petitions in these investigations on April 27, 2023.[3] Petitioner appeared at the staff conference accompanied by counsel and submitted a postconference brief.

Three respondent entities participated in these investigations. Bhiwadi Cylinders Pvt. Ltd. ("Bhiwadi") and Mauria Udyog Ltd. ("Mauria"), subject producers and exporters of NRSC, appeared at the staff conference accompanied by counsel and submitted a joint postconference brief. Inox India Limited ("Inox"), also a subject producer and exporter of NRSC,

[1] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

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

[3] Petitions at 1-2.

appeared at the staff conference accompanied by counsel and submitted a postconference brief.

U.S. industry data are based on the questionnaire response of Worthington, which accounted for 100 percent of U.S. production of NRSC in 2022.[4] U.S. import data are based on the questionnaire responses of 15 importers, which accounted for an estimated *** percent of U.S. imports from subject sources and *** percent of U.S. imports from nonsubject sources in 2022.[5] The Commission received responses to its questionnaire from three producers/exporters of subject merchandise from India, which accounted for approximately *** percent of overall production of NRSC in India in 2022.[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]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by the U.S.

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[4] Confidential Staff Report, INV-VV-047 (Jun. 5, 2023) ("CR"); *Non-Refillable Steel Cylinders from India*, Inv. Nos. 701-TA-689 and 731-TA-1618 (Preliminary), USITC Pub. 5437 (June 2023) ("PR") at I-4 and III-1.

[5] CR/PR at I-4. Questionnaire coverage was determined based on official import statistics using HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090, "basket categories" that may include out-of-scope merchandise. Although subject merchandise may also enter under HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065, Petitioner asserts that the "vast majority, if not all" NRSC enter the United States under HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090. CR/PR at IV-1 n.2. Bhiwadi, Mauria, and Inox also relied on these HTS statistical reporting numbers and did not include HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065 in their estimate of imports. *See id*.

[6] CR/PR at VII-3.

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

Department of Commerce ("Commerce").[10] Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at LTFV is "necessarily the starting point of the Commission's like product analysis."[11] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[12] The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[13] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[14] The Commission looks for clear dividing lines among possible like products and

[10] 19 U.S.C. § 1677(10). 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. *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).

[11] *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, Case No. 19-1289, slip op. at 8-9 (Fed. Cir. Feb. 7, 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[12] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *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); *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).

[13] *See*, *e.g.*, *Cleo*, 501 F.3d at 1299; *NEC Corp. v. Dep't 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).

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

disregards minor variations.[15] It may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[16]

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

> . . . {C}ertain seamed (welded or brazed), non-refillable steel cylinders meeting the requirements of, or produced to meet the requirements of, U.S. Department of Transportation specification 39, TransportCanada specification 39M, or United Nations pressure receptacle standard ISO 11118 and otherwise meeting the description provided below (non-refillable steel cylinders). The subject non-refillable steel cylinders are portable and range from 100-cubic inch (1.6 liter) water capacity to 1,526-cubic inch (25 liter) water capacity. Subject non-refillable steel cylinders may be imported with or without a valve and/or pressure release device and are unfilled at the time of importation. Non-refillable steel cylinders filled with pressurized air otherwise meeting the physical description above are covered by this investigation.
>
> Specifically excluded are seamless nonrefillable steel cylinders.
>
> The merchandise subject to this investigation is properly classified under statistical reporting numbers 7311.00.0060 and 7311.00.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). The merchandise may also enter under HTSUS statistical reporting numbers 7310.29.0030 and 7310.29.0065. Although the HTSUS statistical reporting numbers are provided for convenience and customs purposes, the written description of the merchandise is dispositive.[17]

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[15] *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.").

[16] *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, coextensive with the scope).

[17] *Certain Non-Refillable Steel Cylinders from India: Initiation of Less-Than-Fair-Value*, 88 Fed. Reg. 33571, 33575 (Dep't Commerce May 24, 2023); *Certain Non-Refillable Steel Cylinders from India: Initiation of Countervailing Duty Investigation*, 88 Fed. Reg. 33580, 33583 (Dep't Commerce May 24, 2023).

NRSC are portable, non-reusable steel containers specifically designed to store, transport, and dispense compressed or liquefied gases, or other materials for a wide variety of end-use applications. Some common contents and end-uses include: (1) refrigerant gases for refrigeration and air-conditioning applications; (2) helium for inflating retail and commercial balloons; (3) gases for medical and industrial applications; and (4) various liquid chemical mixtures such as foam insulations, sealants, and adhesives for residential and commercial construction applications. Generally, the empty cylinders are sold to customers who fill them with gases or liquid chemical mixtures that are then sold to end users for each specific application. The record indicates that both domestically produced and imported NRSC are manufactured by similar processes to meet the same technical specifications required for the U.S. market.[18]

A. Arguments of the Parties

Petitioner's Argument. Petitioner argues that the Commission should define a single domestic like product, coextensive with the scope.[19] Petitioner asserts that this would be consistent with the Commission's domestic like product definition in its prior investigations covering NRSC from China, the scope of which was functionally identical to the scope of these investigations.[20] In Petitioner's view, the Commission's traditional domestic like product factors also support defining a single domestic like product coextensive with the scope.[21]

Respondents' Argument. No respondent contests the Petitioner's proposed definition of the domestic like product, although Bhiwadi and Mauria reserve the right to do so in any final phase of these investigations.[22]

B. Analysis and Conclusion

Based on the record, we define a single domestic like product consisting of all NRSC, coextensive with the scope in these investigations.

Physical Characteristics and Uses. The record indicates that all NRSC are portable, non-reusable steel containers, which are designed to store, transport, and dispense compressed or

[18] CR/PR at I-6 – I-7.

[19] Petitioner Postconf. Br. at 3-4, Exh. 1 at 29-33.

[20] Petitioner Postconf. Br. at 3-4. Petitioner states that the scope was slightly modified to include NRSC with a minimum water capacity of 100 cubic inches (as opposed to a minimum of 300 cubic inches as was the case in NRSC from China) to address circumvention of the orders by Chinese exporters. *See id.* Exh. 1 at 29.

[21] Petitioner Postconf. Br. Exh. 1 at 30-33.

[22] Bhiwadi Postconf. Br. at 4.

liquefied gases or other materials, including refrigerant gases for refrigeration and air-conditioning applications; helium for inflating retail and commercial balloons; gases for medical and industrial applications; and various liquid chemical mixtures such as foam insulations, sealants, and adhesives for residential and commercial construction applications.[23] NRSC consist of a two-piece welded tank that features two ports, for the one-way dispensing valve and a pressure-release device, and a double-handled handling collar on top, coated with a liquid paint.[24] In the U.S. market, NRSC are typically designed to U.S. Department of Transportation ("USDOT") Specification 39 but may alternatively be designed to meet TransportCanada ("TC") Specification 39M or International Standards Organization ("ISO") standard 11118 for hazardous material packaging.[25] NRSC are offered in a range of sizes, but the 9.5-inch (822 cubic inches) cylinder is the most commonly available size both in the United States and worldwide.[26]

These physical characteristics and end uses distinguish NRSC from other cylinder products. The nature of refrigerant gases and other chemical mixtures precludes the re-use of NRSC designed to meet USDOT Specification 39. Refillable cylinders, such as those filled with propane gas, are distinct from NRSC because they are designed to be re-used over long periods of time, with sturdy collars, foot rings, and two-way valves.[27] And although other cylinders might also be non-refillable, they differ in terms of their smaller size (less than 100-cubic inch capacity), different design (elongated bodies with only one port), and different end uses (to contain and ignite gases such as propane, propylene, or butane for use as a hand-held flame source). Additionally, seamless cylinders are distinguishable from NRSC because they are designed to accommodate higher pressures for industrial and medical gasses such as argon, nitrogen, or oxygen. Further, certain other types of cylinders differ from NRSC in being produced from materials other than steel, such as aluminum, in order to contain reactive gases that cannot be stored in a steel container, such as ammonia, ethylene oxide, hydrogen sulfide, nitric oxide, nitrogen dioxide, or sulfur dioxide.[28]

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[23] CR/PR at I-6.

[24] CR/PR at I-6.

[25] CR/PR at I-6 – I-7. USDOT Specification 39 provides the steel specification for the tank body, welding or brazing requirements, wall thickness, markings, testing, and other technical requirements. *Id*.

[26] CR/PR at I-7, Table I-2. NRSC can range in size from 100 cubic inches to 1,526 cubic inches of water capacity. In the U.S. market, common NRSC sizes are 7.5-inch diameter, 9-inch, 9.5-inch diameter, and 12-inch diameter, although they are also available in other sizes. *Id*.

[27] CR/PR at I-7; Petitioner Postconf. Br. Exh. 1 at 30-31.

[28] CR/PR at I-7; Petitioner Postconf. Br. Exh. 1 at 30-31.

Manufacturing Facilities, Production Processes and Employees. All NRSC are produced from low-carbon, flat-rolled (usually cold-rolled) steel, in the same facilities by the same employees, using the same basic manufacturing process.[29] NRSC are made from round disks of steel press cut from flat-rolled steel coils, which are then drawn through a die, trimmed, and hole punched to create a top and bottom cylinder shell. The pressure-release device, valve and handle are then welded on the top cylinder shell. Handles are made from either stamped steel, which is welded directly to the top shell, or from a wire rod, which is welded to a plate or flange before being welded to the top shell. Subsequently, the two shells are placed together into the welding lathe to create a precise weld.[30] According to Petitioner, other types of cylinders are made on different production lines using different processes, ***, or else in different facilities using different processes and employees.[31]

Channels of Distribution. All domestically produced NRSC are sold to ***.[32]

Interchangeability. The record in the preliminary phase of these investigations indicates that domestically produced NRSC are interchangeable. All NRSC must be produced to meet certain safety standards for authorized storage and transport of hazardous gas or liquid chemicals in the United States, such as USDOT Specification 39, TC Specification 39M, or ISO 11118, and are produced in a continuum of sizes and low pressure ratings.[33] According to Petitioner, while customers have come to expect one or more common sizes for their particular end-use applications, all NRSC are interchangeable with each other and may be used across the full range of end uses.[34]

By contrast, the record indicates that NRSC are not interchangeable with other types of cylinders. For instance, NRSC cannot be used for high-pressure applications (*i.e.*, more than 500 pounds per square inch ("psi")) due to the cylinder design and the potential for failure or rupture at higher pressures. Nor can they be used in certain end uses that require aluminum cylinders, which are mandated for storage of reactive specialty gases that react adversely with carbon steel. Moreover, smaller, non-refillable cylinders are not interchangeable with NRSC due to differences in physical characteristics and design.[35]

[29] CR/PR at I-8 – I-9; Petitioner Postconf. Br. Exh. 1 at 31.
[30] CR/PR at I-8 – I-10, Figure I-1.
[31] Petitioner Postconf. Br. Exh. 1 at 31.
[32] CR/PR at Table II-1; Petitioner Postconf. Br. Exh. 1 at 32.
[33] Petitioner Postconf. Br. Exh. 1 at 31.
[34] CR/PR at I-6 – I-7, Table I-2; Petitioner Postconf. Br. at 31; Conf. Tr. at 80-81 (Powers).
[35] CR/PR at I-7, Table I-2; Petitioner Postconf. Br. Exh. 1 at 31-32.

Producer and Customer Perceptions. Petitioner asserts that end users perceive all NRSC to comprise the same product category, distinct from refillable, non-steel, or smaller cylinders.[36]

Price. According to Petitioner, all NRSC are sold within a range of similar prices that vary based on differences in sizes and pressure ratings, which impact the cost of production. Smaller non-refillable cylinders are sold at different prices due to their size and different production process, while seamless and aluminum cylinders vary significantly in price due to their more costly input materials, manufacturing processes, and specialized end uses.[37]

Conclusion. The record in the preliminary phase of these investigations indicates that all NRSC corresponding to the scope share the same physical design and end uses, and must meet specified safety standards for sale in the U.S. market. In addition, all domestically produced NRSC are produced using the same manufacturing processes, facilities, and employees, and are interchangeable, sold to similar end users, and perceived by producers and customers to comprise a single product category. Accordingly, although NRSC are produced in a range of sizes and prices for a variety of end-use applications, there are no clear dividing lines separating different types of NRSC. By contrast, the record indicates that a clear dividing line separates NRSC from other types of cylinders, in terms of physical characteristics and uses, interchangeability, manufacturing processes, producer and customer perceptions, and prices.

Thus, in light of the above, and in the absence of any contrary argument, for purposes of the preliminary phase of these investigations we define a single domestic like product consisting of all domestically produced NRSC, coextensive with the scope.

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."[38] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

[36] Petitioner Postconf. Br. at Exh. 1 at 32; Conf. Tr. 35 (Ringel) ("… this is a highly regulated product with specific physical and technical characteristics that are both required by law and expected by users.")

[37] Petitioner Postconf. Br. at 32.

[38] 19 U.S.C. § 1677(4)(A).

These investigations raise the issue of whether appropriate circumstances exist to exclude any domestic producers from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[39] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[40]

The record indicates that Worthington is subject to the related parties provisions since it imported subject merchandise during the POI.[41] Worthington argues that it is not appropriate for the Commission to exclude the company, as it accounts for all domestic production of NRSC, its imports were small in comparison to its production of NRSC in 2022, and its interest lies in domestic production.[42] Respondents do not address this issue.[43]

Worthington is the Petitioner and the sole domestic producer, accounting for 100 percent of domestic industry production in 2022.[44] Petitioner imported *** units of NRSC from India in 2022 (the equivalent of *** of its domestic production that year).[45] Worthington indicated that it imported subject merchandise to ***.[46]

Given that Worthington is the petitioner and sole domestic producer of NRSC, and its subject imports were limited to 2022 and *** small relative to its domestic production, we

[39] *See Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd mem*., 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem*., 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987)

[40] 19 U.S.C. § 1677(4)(B). The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

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

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

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

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

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

[41] CR/PR at III-2, III-14 & Table III-11.

[42] Petitioner Postconf. Br. at 4-5.

[43] Bhiwadi Postconf. Br. at 4.

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

[45] CR/PR at Table III-11.

[46] CR/PR at Tables III-12, III-14, n.13.

find that appropriate circumstances do not exist to exclude Worthington from the domestic industry pursuant to the related parties provision.

Accordingly, consistent with our definition of the domestic like product, we define the domestic industry as the only U.S. producer of NRSC, Worthington.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.[47]

During the 12-month period preceding the filing of the petitions (April 2022 through March 2023), imports of NRSC from India subject to both the antidumping and countervailing duty investigations accounted for *** percent of total imports.[48] Because subject imports from India are above the statutory threshold, we find that NRSC from India subject to the antidumping and countervailing duty investigations 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.[49] 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

[47] 19 U.S.C. § 1677(24)(A)(i). 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. 19 U.S.C. § 1677(24)(B). USTR has not designated India as a developing country. *Designations of Developing and Least-Developed Countries Under the Countervailing Duty Law*, 85 Fed. Reg. 7613 (Feb. 10, 2020).

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

[49] 19 U.S.C. §§ 1671b(a), 1673b(a).

operations.[50] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[51] 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.[52] 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."[53]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[54] 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.[55] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[56]

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

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[50] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[51] 19 U.S.C. § 1677(7)(A).

[52] 19 U.S.C. § 1677(7)(C)(iii).

[53] 19 U.S.C. § 1677(7)(C)(iii).

[54] 19 U.S.C. §§ 1671b(a), 1673b(a).

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

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

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.[57] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[58] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[59] It is clear that the existence of injury caused by other factors does not compel a negative determination.[60]

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

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

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

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

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."[61] The Commission ensures that it has "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports."[62] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[63]

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.[64] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[65]

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.

[61] *Mittal Steel*, 542 F.3d at 876 &78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology."), *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[62] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant "other factor" may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

[63] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal Steel*, 542 F.3d at 879 ("*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

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

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

1. Captive Production

The domestic industry captively consumes a portion of its production of NRSC in the manufacture of downstream articles, helium filled NRSC.[66] We therefore consider the applicability of the statutory captive production provision.[67]

Petitioner contends that the captive production provision applies to the NRSC industry because the threshold requirement and both prongs of the captive production provision are satisfied in this case. It argues that while the Commission should therefore focus on the merchant market in its analysis of the domestic industry's performance, the record shows that in both the total market or merchant market, subject imports' market share was significant and increasing over the POI.[68] No respondent addressed the captive production issue.

Threshold Criterion. The captive production provision can be applied only if, as a threshold matter, significant production of the domestic like product is internally transferred and significant production is sold in the merchant market. In these investigations, internal consumption accounted for between *** and *** percent of Worthington's total U.S. shipments of NRSC over the POI, while commercial shipments accounted for between *** and *** percent of its total U.S. shipments during the POI.[69] We find that both internal consumption and merchant market sales constitute significant portions of the domestic

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[66] CR/PR at III-11 n.7, Table III-8.

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

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

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

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

then the Commission, in determining market share and the factors affecting financial performance set forth in clause (iii), shall focus primarily on the merchant market for the domestic like product.

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

[68] Petitioner Postconf. Br. at 7-8.

[69] CR/PR at III-12, Table III-8.

industry's production, and therefore the threshold criterion for applying the captive production provision is met.

First Statutory Criterion. The first criterion examines whether a portion of the domestic like product that is internally transferred for processing into downstream articles is instead sold in the merchant market.[70] In these investigations, Petitioner reported internal consumption of NRSC for the production of helium filled NRSC. It maintains that its internally transferred NRSC, once filled with helium, do not enter the merchant market for the domestic like product.[71] Therefore, this criterion is satisfied.

Second Statutory Criterion. In applying the second statutory criterion, the Commission generally considers whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product, but has also construed "predominant" material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value.[72] In these investigations, the record indicates that NRSC reportedly comprise *** percent of the finished cost of downstream helium filled NRSC.[73] Therefore, we find that this criterion is satisfied in these investigations.[74]

Conclusion. We conclude that all criteria for application of the captive production provision are satisfied in these investigations. Accordingly, we focus primarily on the merchant market in analyzing the market share and financial performance of the domestic industry.[75]

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

[71] CR/PR at III-12.

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

[73] CR/PR at III-13 & Table III-9; Petitioner Postconf. Br. Exh. 1 at 5.

[74] *See Carbon and Certain Alloy Steel Wire Rod from Belarus, Russia, and the United Arab Emirates*, Inv. Nos. 731-TA-1349, 1352, and 1357 (Final), USITC Pub. 4752 at 26-27 (Jan. 2018) (finding second statutory criterion satisfied when reporting domestic producers indicated that wire rod accounted for the majority of the finished cost of a number of downstream products).

[75] In addition to the merchant market, we also have considered the market as a whole. We observe that the data trends are substantially the same for both the merchant and total markets. *See* CR/PR at Table C-2 ("merchant market"); *see also id*. at Table C-1 ("total market").

2. Demand Conditions

U.S. demand for NRSC depends on U.S. demand for the downstream products in which they are used. NRSC are typically filled with products such as refrigerants, helium, or other materials such as insulating foam sealant or adhesive, and are ultimately used in applications including maintenance of home, commercial, and automotive cooling and refrigerant systems, helium balloons, and construction.[76] Petitioner also contends that demand for NRSC depends upon the strength of the U.S. economy.[77]

Petitioner reported that domestic demand for NRSC *** during the POI, while responding importers' responses were mixed.[78] The parties generally agree that demand increased in late 2020 and throughout 2021 in response to a new rule adopted by the U.S. Environmental Protection Agency ("EPA") that would phase out the use of NRSC in certain applications.[79] This new rule led customers in the refrigerant industry to demand additional NRSC that could be filled and sold prior to January 1, 2027.[80] NRSC demand was also impacted by a global helium shortage during the 2020-2022 period of investigation ("POI"), although the parties disagree on the precise impact of the shortage on NRSC demand.[81] The helium shortage started in 2021 and continued into 2022 as a result of fires and explosions at a Siberian plant in 2021 and 2022, and the Russian war in Ukraine beginning in 2022.[82] In addition, Petitioner contends, in late 2021 and early 2022, demand for NRSC containing foam and adhesives also increased due to unprecedented levels of construction and remodeling activity, which peaked in early 2022 before returning to normal levels.[83]

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[76] CR/PR at I-6, II-1 & II-6; Petitioner Postconf. Br. at 8.

[77] CR/PR at II-1.

[78] CR/PR at Table II-4. Five responding importers indicated there was no change in domestic demand, while four indicated domestic demand fluctuated up, and 3 indicated domestic demand fluctuated down. *Id*.

[79] CR/PR at II-7 – II-8. On December 27, 2020, Congress enacted the American Innovation and Manufacturing ("AIM") Act, which established a regime to phase down the production and consumption of hydrofluorocarbons ("HFCs"), greenhouse gasses that are commonly used in refrigerants. On October 5, 2021, the EPA adopted a rule prohibiting the importation of certain HFCs in a disposable cylinder or domestic filling of disposable (*i.e.*, nonrefillable) cylinders filled with certain HFCs by January 1, 2025, and prohibiting the sale and distribution of all disposable cylinders filled with certain HFCs by January 1, 2027. *Id.* at I-11 – I-12.

[80] Petitioner Postconf. Br. at 10.

[81] Petitioner argues that demand for helium, and therefore demand for NRSC, increased in 2021. Petitioner Postconf. Br. at 8-10. Bhiwadi claims the helium shortage has decreased demand for NRSC. CR/PR at I-13.

[82] CR/PR at I-12 – I-13, VII-8 n.12.

[83] CR/PR at II-7; Petitioner Postconf. Br. at 8-10.

During the POI, apparent U.S. consumption, by quantity, increased irregularly from 2020 to 2022. In the merchant market, apparent U.S. consumption increased from *** units in 2020 to *** units in 2021 before declining to *** units in 2022, a level *** percent higher than in 2020.[84]

3. Supply Conditions

The domestic industry was the largest source of NRSC in the U.S. market throughout the POI. Its share of apparent U.S. consumption increased from *** percent in 2020 to *** percent in 2021 before declining to *** percent in 2022, which was *** percentage points lower than in 2020.[85] Petitioner began construction of a new NRSC production line in Columbus, Ohio, in 2021 and began operating it in February 2022. Additionally, it made capital improvements at its Paducah, Kentucky facility during the POI.[86]

Petitioner contends that there were no significant domestic supply constraints during the POI as it remained operational throughout the period despite the COVID-19 pandemic and ***.[87] As demand increased during the POI, Petitioner reported temporarily importing NRSC from an affiliate in Portugal to help reduce extended lead times for its customers, as necessary.[88] Bhiwadi and Mauria claim that Petitioner experienced supply constraints in 2021 and early 2022 as it did not have sufficient capacity to meet the growing demand in the U.S. market, resulting in extended lead times of up to 18 months.[89]

Subject imports were the second largest source of supply to the U.S. market in 2021 and 2022. Their share of apparent U.S. consumption in the merchant market increased by *** percentage points over the POI. Subject imports as a share of apparent U.S. consumption

[84] CR/PR at Tables IV-7, C-2. In the total market, apparent U.S. consumption increased from *** units in 2020 to *** units in 2021 before declining to *** in 2022, a level *** percent higher than in 2020. *Id*. at Tables IV-6, C-1. Worthington believes that apparent U.S. consumption data in these investigations are likely understated due to missing importer data. Petitioner Postconf. Br. at 21 n.15.

[85] CR/PR at Tables IV-7, C-2. In the total market, the domestic industry's market share decreased by *** percentage points during the POI and was *** percent in 2020, *** percent in 2021, and *** percent in 2022. *Id*. at Tables IV-6, C-1.

[86] CR/PR at Table III-3.

[87] Petitioner Postconf. Br. at 14.

[88] CR/PR at II-6; Petitioner Postconf. Br. at 14.

[89] Bhiwadi Postconf. Br. at 13-16.

increased from *** percent in 2020, to *** percent in 2021, and *** percent in 2022.[90] A majority of U.S. importers did not report supply constraints during the POI, although two importers reported a lack of availability and lead times of up to one year for NRSC.[91]

Nonsubject imports began the POI as the second largest source of NRSC but, after the imposition of antidumping and countervailing duty orders on NRSC from China on May 11, 2021, became the smallest source in 2021 and 2022.[92] Their share of apparent U.S. consumption decreased irregularly over the POI, decreasing from *** percent in 2020 to *** percent in 2021 and increasing to *** percent in 2022.[93] China and Mexico were the largest country sources of nonsubject imports during the POI.[94]

4. Substitutability and Other Conditions

Based on the record in the preliminary phase of these investigations, we find that there is a moderate-to-high degree of substitutability between domestically produced NRSC and subject imports. All NRSC sold in the U.S. market are produced to meet USDOT Specification 39 or other applicable standards. The responding U.S. producer and all but one responding U.S. importer reported that subject imports were always interchangeable with domestically produced NRSC.[95] Substitutability was limited by factors including product range, quality, and production capacity.[96]

We also find that price is an important purchasing factor, although other factors are also important. Petitioner reported that differences other than price are never significant, and most responding importers reported that such differences are sometimes or never significant.[97]

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[90] CR/PR at Tables IV-7, C-2. In the total market, subject imports' market share increased by *** percentage points during the POI and was *** percent in 2020, *** percent in 2021, and *** percent in 2022. *Id*. at Tables IV-6, C-1.

[91] CR/PR at II-6.

[92] CR/PR at I-4. In May 2023, Commerce initiated an anti-circumvention inquiry into NRSC from China. *Id*. at IV-4 n.7.

[93] CR/PR at Tables IV-7, C-2. In the total market, nonsubject imports' market share decreased by *** percentage points during the POI, decreasing from *** percent in 2020 to *** percent in 2021 and increasing slightly to *** percent in 2022. *Id*. at Tables IV-6, C-1.

[94] CR/PR at II-6.

[95] CR/PR at Tables II-6 – II-7.

[96] CR/PR at II-9. Importers reported that customer requirements, such as cartons, valves, handles, and paint, limited interchangeability. *Id*. at II-10.

[97] CR/PR at Tables II-8 – II-9. When asked how frequently differences other than price were significant between subject imports and the domestic like product, four responding importers reported always, one reported frequently, two reported sometimes, and five reported never. *Id.* at Table II-9.

Purchasers responding to the lost sales and lost revenue survey ranked price among the top three most important factors in purchasing decisions for NRSC.[98]

In 2022, approximately *** of Worthington's U.S. shipments of NRSC were sold from inventories, with an average lead time of *** days, while the remainder was produced-to-order with lead times averaging *** days.[99] Responding U.S. importers reported that the vast majority of their U.S. shipments, *** percent, came from foreign inventories with lead times averaging *** days, while the remainder were produced-to-order with lead times averaging *** days.[100] Worthington reported that it was forced to ***.[101]

Worthington reported selling NRSC primarily through *** in 2022, but also through ***.[102] It reported indexing its long-term and annual contract prices to CRU steel prices or to the *** for raw materials, while ***.[103] Responding U.S. importers reported selling NRSC primarily through *** in 2022, but also through ***.[104] Several major purchasers imported directly from subject producers during the POI.[105]

NRSC are typically made from cold-rolled steel.[106] During the POI, the ***.[107]

(…Continued)
Importers reported that defect rates, shelf life, lead times, and diversity of supply were significant non-price factors as between subject import and the domestic like product. *Id*. at II-10 – I-11.

[98] CR/PR at II-9 & Table II-5. Purchasers ranked availability/supply (eight firms), quality (five firms), price/cost (two firms), and lead times (two firms) as among the top three most important factors in purchasing decisions for NRSC. Availability/supply was the most frequently cited first-most important factors (cited by 4 firms); quality was the most frequently reported second-most important factor (3 firms); and both quality and availability/supply were the most frequently reported third-most important factor (2 firms each). *Id*. at Table II-5.

[99] CR/PR at II-9.

[100] CR/PR at II-9 – II-10.

[101] CR/PR at II-6. Bhiwadi reported Worthington's lead times increased up to 15 to 18 months during the POI. Bhiwadi Postconf. Br. at 16.

[102] CR/PR at Table V-3.

[103] CR/PR at V-4; Conference Tr. at 74 (Powers); Petitioner Postconf. Br. Exh. 1 at 5-6.

[104] CR/PR at Table V-3.

[105] CR/PR at V-9.

[106] CR/PR at V-1.

[107] CR/PR at V-1 & Figure V-1. Worthington reported that the additional duties on steel products imposed pursuant to section 232 of the Trade Expansion Act of 1962 ("section 232 tariffs") ***, while the majority of importers reported that they did not know. *Id*. at II-2.

Worthington's merchant market unit raw material costs increased from $*** in 2020 to $*** in 2022.[108] Raw materials as a share of total cost of goods sold ("COGS") in the merchant market increased during the POI from *** percent in 2020 to *** percent in 2021 and 2022.[109]

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."[110]

The volume of subject imports in the merchant market increased throughout the POI, from *** units in 2020 to *** units in 2021 and *** units in 2022, a level *** percent higher than in 2020.[111] Subject imports as a share of apparent U.S. consumption in the merchant market increased from *** percent in 2020 to *** percent in 2021 and *** percent in 2022, a level *** percentage points higher than in 2020.[112]

Based on the record of the preliminary phase of the investigations, we conclude that the volume of subject imports and the increase in that volume are significant, both in absolute terms and relative to consumption.

D. Price Effects of the Subject Imports

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

> (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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[108] CR/PR at Table VI-4. Worthington's raw material costs comprised *** percent of the cost of goods sold in the merchant market in 2022 while other factory costs comprised *** percent and direct labor comprised *** percent. *Id*. Worthington's total market unit raw material costs rose from $*** in 2020 to $*** in 2022. Worthington's raw material costs comprised *** percent of the cost of goods sold in the total market in 2022 while other factory costs comprised *** percent and direct labor comprised *** percent. *Id*. at Table VI-1.

[109] CR/PR at Table VI-4. Raw materials as a share of total COGS in the total market increased during the POI from *** percent in 2020 to *** percent in 2021 and *** percent in 2022. *Id*. at Table VI-1.

[110] 19 U.S.C. § 1677(7)(C)(i).

[111] CR/PR at Tables IV-6 – IV-7, C-1 – C-2.

[112] CR/PR at Tables IV-7, C-2. In the total market, subject import market share was *** percent in 2020, *** percent in 2021, and *** percent in 2022. *Id*. at Tables IV-6, C-1.

(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.[113]

As addressed in section VII.B.4. above, we have found a moderate-to-high degree of substitutability between the domestic like product and subject imports and that price is an important factor in purchasing decisions, among other important factors.[114]

We have examined several sources of data for our underselling analysis. The Commission asked U.S. producers and importers to provide quarterly data for the f.o.b. value of two NRSC products shipped to unrelated customers during the POI.[115] Worthington and two importers provided usable pricing data for sales of the requested pricing products, although not all firms reported data for all products for all quarters. Pricing data reported by these firms accounted for *** percent of the domestic industry's U.S. shipments of NRSC and *** percent of U.S. shipments of subject imports in 2022.[116]

The price comparison data in the preliminary phase of these investigations show that subject imports undersold the domestic like product in five of eight quarterly comparisons, or 62.5 percent of the time, corresponding to *** percent of reported subject imports sales volume (*** units), with underselling margins ranging from *** to *** percent and averaging *** percent.[117] Subject imports oversold the domestic like product in three of eight quarterly comparisons, or 37.5 percent of the time, corresponding to *** percent of reported subject import sales volume (*** units), with overselling margins ranging between *** and *** percent and averaging *** percent.[118]

As discussed in section VI.B.4, several major purchasers import NRSC directly from subject producers, for internal consumption in the production of filled NRSC. Accordingly, the Commission also collected import purchase cost data for the same two pricing products from firms that imported NRSC from India for their own use. Ten importers provided usable

[113] 19 U.S.C. § 1677(7)(C)(ii).

[114] *See* Section VII.B.4 above.

[115] The two pricing products are as follows:

Product 1.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Product 2.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39. CR/PR at V-4.

[116] CR/PR at V-5.

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

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

purchase cost data for the pricing products, although not all firms reported data for all products for all quarters. Purchase cost data reported by these firms accounted for approximately *** percent of subject imports from India in 2022.[119]

Based on the purchase cost data obtained by the Commission, landed duty-paid ("LDP") costs for subject imports were below the sales price for U.S. produced NRSC in 13 of 17 quarterly comparisons, or 76.5 percent of the time, corresponding to *** percent of reported subject import purchases (*** units), at price-cost differentials ranging from *** percent to *** percent and averaging *** percent.[120] We observe that the price-cost differentials were greatest, ranging from *** to *** percent, for pricing product 2, which accounted for a large proportion of the total volume of subject imports.[121] LDP costs for subject imports were above the sales prices of the domestic like product in the remaining four quarterly comparisons, or 23.5 percent of the time, corresponding to *** percent of reported subject import purchases (*** units), at price-cost differentials ranging from *** percent to *** percent and averaging *** percent.[122]

We recognize that the import purchase cost data may not reflect the total cost of importing. Therefore, we requested that direct importers provide additional information regarding the costs and benefits of directly importing NRSC. Five of nine responding importers reported that they incurred additional costs by importing NRSC rather than purchasing from Worthington or other importers, while four importers did not report additional costs.[123] Seven of ten importers reported that the cost of importing directly was lower than purchasing from a U.S. producer or importer, even when including the additional costs of importing.[124] Two importers estimated that they saved between *** percent of the purchase price by importing directly rather than purchasing from a U.S. importer.[125] Eight importers estimated that they saved between *** percent of LDP value by importing directly rather than purchasing from a U.S. producer.[126]

We have also considered purchasers' responses to the lost sales/lost revenue survey. Of the seven purchasers that responded to the Commission's survey, five reported that they had

[119] CR/PR at V-9. These reported additional costs included quality management, financing, shipping, and storage costs, with estimated costs ranging from *** to *** percent of LDP value. *Id*.

[120] CR/PR at Table V-11.

[121] CR/PR at Table V-11.

[122] CR/PR at Table V-11.

[123] CR/PR at V-9.

[124] CR/PR at V-10.

[125] CR/PR at V-10.

[126] CR/PR at V-10.

purchased subject imports instead of the domestic like product and that subject imports were priced lower than the domestic like product during the POI.[127] These five purchasers indicated that price was not a primary reason for purchasing subject imports rather than the domestic like product, however, citing supply constraints and supply chain issues as their non-price reasons for purchasing subject imports.[128]

Based on the foregoing, we find, for purposes of the preliminary phase of these investigations, that subject import underselling was significant during the POI. The availability of lower priced subject imports contributed to them increasing their share of the merchant market by *** percentage points from 2020 to 2022, while the domestic industry lost *** percentage points of market share.[129] This occurred at a time when nonsubject imports from China receded from the market following Commerce's preliminary antidumping and countervailing duty determinations and the imposition of the orders.[130] The underselling also led to a *** percentage point shift in market share from the domestic industry to subject

[127] CR/PR at V-19. No responding purchaser estimated the quantity of NRSC from India purchased instead of the domestic product. *Id*. at Table V-13.

[128] CR/PR at V-19.

[129] CR/PR at Tables IV-7, C-2. The domestic industry's share of apparent U.S. consumption in the merchant market decreased irregularly over the POI, increasing from *** percent in 2020 to *** percent in 2021, before declining to *** percent in 2022. In contrast, subject imports' share of apparent U.S. consumption increased over the POI from *** percent in 2020, to *** percent in 2021, and *** percent in 2022. *Id*.

In the total market, the domestic industry's share of apparent U.S. consumption declined *** percentage points over the POI, from *** percent in 2020 to *** percent in 2022. *Id*. at Tables IV-6, C-1. In contrast, subject imports' share of apparent U.S. consumption increased *** percentage points over the POI, from *** percent in 2020, to *** percent in 2021, and *** percent in 2022. *Id*.

[130] Nonsubject imports from China receded from the market following Commerce's preliminary countervailing and antidumping duty determinations and the collection of cash deposits for imports of NRSC from China in August 2020 and October 2020, respectively. *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination*, 85 Fed. Reg. 53323 (Aug. 28, 2020); *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination and Extension of Provisional Measures*, 85 Fed. Reg. 68852 (Oct. 30, 2020). The antidumping and countervailing duty orders were imposed in May 2021. *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Amended Final Antidumping Duty Determination and Antidumping Duty and Countervailing Duty Orders*, 86 Fed. Reg. 25839 (May 11, 2021). In any final phase of these investigations, we intend to further examine whether and to what extent subject imports have prevented the domestic industry from benefiting from the orders on NRSC from China.

imports in the merchant market between 2021 and 2022, even as the industry brought new capacity online.[131]

We have also considered price trends during the POI. The pricing data indicate that prices for domestically produced NRSC for both pricing products fluctuated but increased overall during the POI. Domestic producer sales prices for pricing products 1 and 2 increased *** and *** percent, respectively, over the POI.[132] Two responding purchasers reported that Worthington reduced prices in order to compete with lower-priced subject imports, with both purchasers estimating price reductions of *** percent.[133] Petitioner also provided evidence of several purchasers ***.[134]

We have also examined whether subject imports prevented price increases which otherwise would have occurred to a significant degree. Unit sales value in the merchant market increased more than the domestic industry's unit COGS during the POI.[135] During the POI, the domestic industry's commercial sales AUVs increased by $*** from 2020 to 2022.[136] The domestic industry's costs were also rising, as its unit COGS increased by $*** from 2020 to 2022.[137] The domestic industry's COGS to net sales ratio decreased in the merchant market over the POI, from *** percent in 2020 to *** percent in 2021 and 2022.[138]

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[131] CR/PR at Tables IV-7, C-2. In the total market, the domestic industry lost *** percentage points of market share to subject imports from 2021 to 2022. *Id*. at Tables IV-6, C-1.

[132] CR/PR at V-14 & Table V-8. There was insufficient pricing and purchase cost data to establish trends for subject imports. *Id*.

[133] CR/PR at Table V-14. In addition, two responding purchasers reported that the domestic producer did not lower prices in order to compete with subject imports, and one reported that it did not know. *Id*.

[134] Petitioner Postconf. Br. at 28-30, Exh. 3, Attachments 2-16.

[135] CR/PR at Tables VI-5, C-2. The domestic industry's unit sales value in the merchant market increased by *** percent while its unit COGS increased by *** percent from 2020 to 2022. *Id*. In the total market, the industry's unit sales value increased by *** percent from 2020 to 2022 while its unit COGS increased by *** percent from 2020 to 2022. *Id*. at Tables VI-2, C-1.

[136] CR/PR at Tables VI-5, C-2. The industry's unit sales value increased from $*** in 2020 to $*** in 2021 and $*** in 2022. *Id*. In the total market, its unit sales value increased from $*** in 2020 to $*** in 2021 and $*** in 2022. *Id*. at Tables VI-2, C-1.

[137] CR/PR at Tables VI-5, C-2. The industry's unit COGS increased from $*** in 2020 to $*** in 2021 and $*** in 2022. *Id*. In the total market, its unit COGS increased from $*** in 2020 to $*** in 2021 and $*** in 2022. *Id*. at Tables VI-2, C-1.

[138] CR/PR at Tables VI-4, C-2. Thus, petitioner's COGS to net sales ratio in the merchant market decreased by *** percentage points over the POI. In the total market, Worthington's ratio of COGS to net sales decreased by *** percentage points over the POI, from *** percent in 2020, to *** percent in 2021, and *** percent in 2022. *Id*. at Tables VI-1, C-1. In any final phase of these investigations, we intend to further examine whether and to what extent subject imports have depressed U.S. prices to a

In sum, based on the record of the preliminary phase of these investigations, we find that subject imports significantly undersold the domestic like product. The underselling led to a shift in market share from the domestic industry to subject imports. Therefore, we find that subject imports had significant adverse price effects.

E. Impact of the Subject Imports[139]

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 ("R&D"), 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."[140]

The domestic industry invested over $*** during the POI to increase its capacity to supply NRSC to the U.S. market.[141] Despite the imposition of antidumping and countervailing duty orders on NRSC from China in May 2021, however, the domestic industry was unable to fully benefit from its investments as the significant increase in low-priced subject imports replaced nonsubject imports from China and captured additional market share from the industry.[142]

The domestic industry's practical NRSC capacity increased by *** percent from 2020 to 2022 as Worthington's new production line was completed in February 2022.[143] The industry's practical NRSC capacity increased from *** units in 2020 to ***

(…Continued)
significant degree or prevented price increases, which otherwise would have occurred, to a significant degree.

[139] Commerce initiated its investigations based on estimated dumping margins between 6.24 and 61.00 percent for subject imports. *Certain Non-Refillable Steel Cylinders from India: Initiation of Less-Than-Fair-Value*, 88 Fed. Reg. 33571, 33573 (Dep't Commerce May 24, 2023).

[140] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the TPEA, Pub. L. 114-27.

[141] *See* Petitioner Postconf. Br. Exh. 1 at 11, 27. After market conditions improved in late 2020 due to preliminary relief granted against NRSC from China, Worthington made a $21 million dollar investment in a new NRSC production line. It also invested an additional $*** in projects including the *** during the POI.

[142] CR/PR at I-4.

[143] CR/PR at Table III-5 & n.3.

units in 2021 and *** units in 2022.[144] Its production increased by *** percent from 2020 to 2022, from *** units in 2020 to *** units 2021 and *** units in 2022.[145] The industry's capacity utilization increased from *** percent in 2020 to *** percent in 2021 before declining to *** percent in 2022, a decline of *** percentage points from 2020.[146] As Worthington's capacity increased from 2021 to 2022, low-priced subject imports captured *** percentage points of market share from the domestic industry, which limited Worthington's ability to fill its new capacity and contributed to a *** percentage point decline in the industry's rate of capacity utilization.

Worthington's employment-related indicators for the domestic industry generally increased during the POI. The number of production and related workers ("PRWs") increased irregularly by *** percent, decreasing from *** PRWs in 2020 to *** PRWs in 2021 before increasing to *** PRWs in 2022.[147] Similarly, hours worked declined from *** hours in 2020 to *** hours in 2021 before increasing to *** hours in 2022, a level *** percent higher than in 2020.[148] Wages paid increased by *** percent from 2020 to 2022, increasing from $*** in 2020 to $*** in 2021 and $*** in 2022.[149] As PRWs increased, productivity (as measured in units per 1,000 hours) decreased *** percent during the POI. The industry's productivity increased from *** units per hour in 2020 to *** units per hour in 2021 and then declined to *** units per hour in 2022.[150]

The domestic industry's U.S. shipments in the merchant market increased from *** units in 2020 to *** units in 2021 before decreasing to *** units in 2022, a level *** percent lower than 2020.[151] The industry's share of apparent U.S. consumption in the merchant market increased from *** percent in 2020 to *** percent in

[144] CR/PR at Table III-5.

[145] CR/PR at Table III-5.

[146] CR/PR at Tables III-5, C-1.

[147] CR/PR at Table III-13. Petitioner asserts that it was *** in November 2022 due to low-priced subject imports taking market share and reducing Worthington's sales and production. Petitioner Postconf. Br. at 39-40.

[148] CR/PR at Tables III-13, C-1.

[149] CR/PR at Tables III-13, C-1.

[150] CR/PR at Tables III-13, C-1.

[151] CR/PR at Tables III-8, C-2. In the total market, Worthington's U.S. shipments increased from *** units in 2020, to *** units in 2021, before declining to *** units in 2022. CR/PR at Tables III-7, C-1. Thus, domestic producer's U.S. shipments in the total market declined *** percent over the POI.

2021 before decreasing to *** percent in 2022, a loss of *** percentage points of market share over the POI.[152]

The domestic industry's end-of-period inventories increased *** percent from 2020 to 2022, initially falling from *** units in 2020 to *** units in 2021 before increasing to *** units in 2022.[153] As a share of total shipments, the domestic industry's end-of-period inventories increased irregularly, from *** percent in 2020 to *** percent in 2021 and *** percent in 2022, a level *** percentage points higher than in 2020.[154]

The domestic industry's financial indicators generally improved over the POI, although the industry's profitability remained weak. The industry's commercial sales revenue in the merchant market increased from $*** in 2020 to $*** in 2021 and $*** in 2022, a level *** percent higher than in 2020.[155] The industry's gross profits increased from $*** in 2020 to $*** in 2021 and $*** in 2022, a level *** percent higher than in 2020.[156]

The industry's operating income, net income, operating income to net sales ratio, and net income to net sales ratio were *** in 2020 and 2021 but improved over the POI on a relative and absolute basis. The industry's operating income in the merchant market increased from *** in 2020 to *** in 2021 and was $*** in 2022.[157] Its net income in the merchant market increased from *** in 2020 to *** in 2021 and $*** in 2022.[158] As a ratio to net sales, the industry's operating income in the merchant market improved from *** percent in

[152] CR/PR at Tables IV-7, C-2. In the total market, Worthington's market share increased from *** percent in 2020 to *** percent in 2021, before declining to *** percent in 2022. CR/PR at Tables IV-6, C-1. Thus, domestic producer's share of the total market declined *** percentage points over the POI.

[153] CR/PR at Table III-10.

[154] CR/PR at Table III-10.

[155] CR/PR at Tables VI-4, C-2. Net sales value in the total market increased *** percent from $*** in 2020 to $*** in 2021, then declined to $*** in 2022. *Id*. at Tables VI-1, C-1.

[156] CR/PR at Tables VI-4, C-2. In the total market, gross profits increased *** percent over the POI, increasing from $*** in 2020 to $*** in 2021, and $*** in 2022. *Id*. at Tables VI-1, C-1.

[157] CR/PR at Tables VI-4, C-2. In the total market, its operating income increased from *** in 2020 to *** in 2021 and $*** in 2022. *Id*. at Tables VI-1, C-1.

[158] CR/PR at Tables VI -4, C-2. The domestic industry's net income in the total market increased from *** in 2020 to *** in 2021 and *** in 2022. *Id*. at Tables VI-1, C-1.

2020 to *** percent in 2021 and *** percent in 2022.[159] Its net income as a share of net sales in the merchant market improved from *** percent in 2020 to *** percent in 2021 and *** percent in 2022.[160] The industry's return on assets improved from *** percent in 2020 to *** percent in 2021 and *** percent in 2022.[161]

The domestic industry's capital expenditures increased irregularly during the POI, increasing from $*** in 2020 to $*** in 2021, before declining to $*** in 2022,[162] while R&D expenses increased from $*** in 2020 to $*** in 2021 and $*** in 2022.[163] According to Worthington, the capital expenditures reflect ***, and the increase in R&D expenses reflect ***.[164] According to information provided by Worthington, the domestic industry's performance was far worse in the second half of 2022 than in the first half of 2022.[165]

As discussed above, subject import volume and market share increased significantly over the POI, driven by significant underselling. Increasing volumes of low-priced subject imports replaced nonsubject imports from China over the POI and captured additional market share from the domestic industry from 2021 to 2022. As the industry lost *** percentage points of market share to low-priced subject imports between 2021 and 2022, the domestic industry's production, capacity utilization, and U.S. shipments were lower and its financial

[159] CR/PR at Tables VI -4, C-2. In the total market, its ratio of operating income to net sales increased from *** percent in 2020 to *** percent in 2021 and *** percent in 2022. *Id*. at Tables VI -1, C-1.

[160] CR/PR at Tables VI-4, C-2. In the total market, its ratio of net income to net sales increased from *** percent in 2020 to *** percent in 2021 and *** percent in 2022. *Id*. at Tables VI-1, C-1.

[161] CR/PR at Table VI-12.

[162] CR/PR at Tables VI-7, C-1. The industry's capital expenditures increased *** percent over the POI. *Id*.

[163] CR/PR at Tables VI-9, C-1. Thus, R&D expenses increased *** percent from 2020 to 2022. *Id*.

[164] CR/PR at Tables VI-8, VI-10.

[165] Petitioner Postconf. Br. at 41-42, Exh. 5. The industry's U.S. shipments in the merchant market declined *** percent from the first to second half of 2022, while its U.S. shipments in the total market declined *** percent. The industry's gross profits decreased from $*** in the first half of 2022 to $*** in the second half of 2022, over the same period operating income decreased from $*** to ***, and net income decreased from $*** to ***. As a share of net sales, its operating income decreased from *** percent in the first half of 2022 to *** percent in the second half of 2022 and net income to net sales ratio decreased from *** percent to *** percent over the same period. Petitioner's information comparing its financial performance over 2022 concerns only the total market. *Id*.

performance weaker than would have been the case otherwise. As the domestic industry's practical capacity increased by *** units from 2021 to 2022 with the addition of Worthington's new production line, the industry's production increased by only *** units, due in part to the market share lost to subject imports, and its rate of capacity utilization declined *** percentage points from *** percent to *** percent.[166] Consequently, we find that subject imports had a significant adverse impact on the domestic industry.

We are unpersuaded by respondents' argument that the domestic industry was not injured during the POI because its performance improved after the imposition of antidumping and countervailing duty orders on NRSC from China.[167] Despite improvements in many measures of the domestic industry's performance over the POI, the industry's performance was weaker than it would have been had the industry not lost market share to subject imports from 2021 to 2022.[168]

We are also unpersuaded by respondents' argument that any injury to the domestic industry resulted from the industry's supply constraints and allegedly ill-timed new production line, and not subject imports.[169] We recognize that the domestic industry was operating at a *** rate of capacity utilization in 2020 and 2021, when apparent U.S. consumption increased, and that its additional capacity did not become operational until 2022, when apparent U.S. consumption declined. Nevertheless, the domestic industry's loss of market share to low-priced subject imports from 2021 to 2022 exacerbated the effects of declining demand during the period.[170]

In any final phase of these investigations, we intend to further investigate the extent to which supply constraints and lead times affected the domestic industry's performance, as well as the extent to which any quality differences between subject imports and the domestic like product influenced purchasing decisions.[171]

We have considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from other factors to subject imports. Nonsubject imports declined in terms of volume between 2020 and 2022 and lost *** percentage points of market share, as nonsubject imports from China became subject to antidumping and countervailing duty orders in May 2021 and receded from

[166] CR/PR at Table III-5.
[167] Bhiwadi Postconf. Br. at 34-37.
[168] CR/PR at Table C-2.
[169] Bhiwadi Postconf. Br. at 27-30, 37.
[170] CR/PR at Table C-2.
[171] Bhiwadi Postconf. Br. at 37. In any final phase investigations, the parties are invited to submit comments on these issues.

the U.S. market.[172] We acknowledge that nonsubject imports increased in terms of volume and market share from 2021 to 2022, however this does not negate the *** percentage points in market share that subject imports gained over the same period.[173] We therefore find, for purposes of these preliminary determinations, that nonsubject imports do not negate the impact of subject imports on the domestic industry.

Moreover, demand trends cannot explain the injury that we have attributed to subject imports. As discussed in section IV.B.2 above, apparent U.S. consumption increased from 2020 to 2022, both in the merchant market and in the total market.[174] Although demand decreased from 2021 to 2022, the decline in the domestic industry's commercial shipments (*** percent), driven in part by the industry's loss of market share to subject imports, was substantially greater than the decline in apparent U.S. consumption in the merchant market (*** percent).[175] Thus, declining demand cannot explain the injury caused by the *** percentage point shift in market share from the domestic industry to subject imports from 2021 to 2022.

In sum, based on the record of the preliminary phase of these investigations, we conclude that subject imports had a significant adverse impact on the domestic industry.

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 subject imports of NRSC from India that are allegedly sold in the United States at less than fair value and subsidized by the government of India.

[172] CR/PR at Tables IV-7, C-2. Nonsubject imports lost *** percentage points of market share in the total market over the POI. *Id*. at Tables IV-6, C-1.

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

[174] Apparent U.S. consumption increased *** percent in the merchant market and *** percent in the total market from 2020 to 2022. CR/PR at Tables IV-6 – IV-7, C-1 – C-2.

[175] CR/PR at Tables IV-7, C-2. In the total market, the domestic industry's U.S. commercial shipments declined *** percent from 2021 to 2022, and apparent U.S. consumption declined *** percent during this time. *Id*. at Tables IV-6, C-1.

Part I: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Worthington Industries, Columbus, Ohio, on April 27, 2023, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of non-refillable steel cylinders ("NRSC")[1] from India. Table I-1 presents information relating to the background of these investigations.[2] [3]

Table I-1
NRSC: Information relating to the background and schedule of these proceedings

Effective date	Action
April 27, 2023	Petitions filed with Commerce and the Commission; institution of the Commission investigations (88 FR 27920, May 3, 2023)
May 17, 2023	Commerce's notice of initiation of LTFV investigation (88 FR 33571, May 24, 2023)
May 17, 2023	Commerce's notice of initiation of countervailing duty investigation (88 FR 33580, May 24, 2023)
May 18, 2023	Commission's conference
June 9, 2023	Scheduled date for the Commission's vote
June 12, 2023	Scheduled date for the Commission's determinations
June 20, 2023	Scheduled date for the Commission's views

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*

[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.

the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

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

In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.. . .In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . .(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more 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 subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

Market summary

NRSCs are portable, non-refillable steel tanks used to contain liquefied or compressed gases such as refrigerants or helium, or other materials such as insulating foam sealant or adhesive. The only known U.S. producer of NRSCs is Worthington Industries ("Worthington"), while leading producers of NRSCs outside the United States include *** of India. The leading U.S. importers of NRSC from India are ***, also the leading importers of product from nonsubject countries (primarily ***). U.S. purchasers of NRSCs are firms that fill NRSCs with refrigerants, other gases such as helium, or foam adhesives or sealants for sale to HVAC, construction, or retail industries; leading purchasers include ***.

Apparent U.S. consumption of NRSCs totaled approximately *** units ($***) in 2022. Currently, one firm is known to produce NRSCs in the United States. The sole U.S. producer's U.S. shipments of NRSCs totaled *** units ($*** million) in 2022, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from India totaled *** units ($***) in 2022 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from nonsubject sources totaled *** units ($***) in 2022 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of one firm that accounted for 100 percent of U.S. production of NRSCs during 2022. U.S. imports are based on the questionnaire responses of 15 importers that accounted for *** percent of official import statistics for subject sources, and *** percent of official import statistics for nonsubject sources, under HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090 in 2022.[6]

Previous and related investigations

NRSCs have been the subject of one prior countervailing and antidumping duty investigation in the United States. In March 2020, Worthington filed petitions alleging that an industry in the United States was materially injured or threatened with material injury by reason of subsidized and LTFV imports of NRSCs from China. In May 2021, antidumping and countervailing duties were imposed on imports of NRSCs from China, following an affirmative injury determination by the Commission.[7]

Nature and extent of alleged subsidies and sales at LTFV

Alleged subsidies

On May 24, 2023, Commerce published a notice in the Federal Register of the initiation of its countervailing duty investigation on NRSCs from India.[8] Based on its review of the petition, Commerce finds that there is sufficient information to initiate a countervailing duty investigation on 51 of 52 alleged programs.

[6] Although HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090 are "basket categories" which may contain nonsubject merchandise, petitioner asserts that these categories account for the "vast majority, if not all" NRSCs entering the United States. Conference transcript, p. 88 (Ringel). Responding Indian producers/exporters Bhiwadi Cylinders Private Limited, Mauria Udyog Limited, and Inox India Limited also did not include HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065 in their estimate of imports. For more information, see part IV of this report.

[7] 86 FR 25839, May 11, 2021.

[8] For further information on the alleged subsidy programs see Commerce's notice of initiation and related CVD Initiation Checklist. 88 FR 33580, May 24, 2023.

Alleged sales at LTFV

On May 24, 2023, Commerce published a notice in the Federal Register of the initiation of its LTFV investigation on NRSCs from India.[9] Commerce has initiated its LTFV investigation based on estimated dumping margins of 6.24 and 61.00 percent for NRSC from India.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[10]

> *The merchandise covered by this investigation is certain seamed (welded or brazed), non-refillable steel cylinders meeting the requirements of, or produced to meet the requirements of, U.S. Department of Transportation specification 39, TransportCanada specification 39M, or United Nations pressure receptacle standard ISO 11118 and otherwise meeting the description provided below (non-refillable steel cylinders). The subject non-refillable steel cylinders are portable and range from 100-cubic inch (1.6 liter) water capacity to 1,526-cubic inch (25 liter) water capacity. Subject non-refillable steel cylinders may be imported with or without a valve and/or pressure release device and are unfilled at the time of importation. Non-refillable steel cylinders filled with pressurized air otherwise meeting the physical description above are covered by this investigation.*
>
> *Specifically excluded are seamless non-refillable steel cylinders.*

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 provisions of the Harmonized Tariff Schedule of the United States ("HTS"): 7311.00.0060 for NRSCs for compressed or liquefied gases that are certified at the producing plant prior to exportation and 7311.00.0090 for those not so certified prior to exportation. NRSCs may also be imported under HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065.[11] The 2023

[9] 88 FR 33571, May 24, 2023.

[10] 88 FR 33571, May 24, 2023.

[11] NRSC subject to this investigation may have previously been imported under HTS statistical reporting numbers 7310.29.0025 and 7310.29.0050. As of July 1, 2020, HTS statistical reporting number 7310.29.0025 which covered subject steel containers, not closed by either soldering or crimping, of (continued...)

general rate of duty is free for HTS headings 7311.00.00 and 7310.29.00.[12] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.[13]

The product

Description and applications[14]

NRSCs are portable, non-reusable steel containers specifically designed to store, transport, and dispense compressed or liquefied gases, or other liquid materials for a wide variety of end-use applications. Some common contents and end-uses include: (1) refrigerant gases for refrigeration and air-conditioning applications; (2) helium for inflating retail and commercial balloons; (3) gases for medical and industrial applications; and (4) various liquid chemical mixtures such as foam insulations, sealants, and adhesives for residential and commercial construction applications. Generally, the empty cylinders are sold to customers who fill them with gases or liquid chemical mixtures that are then sold to end users for each specific application.[15]

The two-piece welded tank of an NRSC features two ports, for the one-way dispensing valve and pressure-release device, along with a double-handled handling collar on top (table I-2). NRSCs for use in the U.S. market are typically designed to meet the requirements of USDOT

(…continued)

circular cross section, with a volume capacity between 11.4 liters and 26.6 liters, for the conveyance of goods, was discontinued and superseded by HTS statistical reporting numbers 7310.29.0020 for refillable stainless steel kegs with a volume capacity between 11.4 liters and 26.6 liters and 7310.29.0030 for all other steel containers of circular cross section and volume capacity between 11.4 liters and 26.6 liters not elsewhere specified or included ("nesoi"). HTS statistical reporting number 7310.29.0050, for steel containers, not closed by either soldering or crimping, or circular cross section, with a volume capacity either less than 11.4 liters or greater than 26.6 liters but less than 50 liters, for the conveyance of goods, was also discontinued as of July 1, 2020. It was superseded by HTS statistical reporting numbers 7310.29.0055 for other refillable stainless steel kegs, and 7310.29.0065 for all other steel containers, nesoi. See HTS Change Record (Revision 14), 2022.

[12] HTSUS (2023) Revision 5, USITC Publication 5424, May 2023, p. 73-25.

[13] Subject NRSC are not subject to additional duties under Section 232.

[14] Unless otherwise specified, information in this section is from the following sources: Petition, part II, pp. 4-6 (PDF pp. 8-10).

[15] However, some NRSC producers fill the tanks themselves for certain end-use applications. For example, Worthington Industries fills some of its NRSC with helium for sale to party stores and other customers prior to shipment. Vimeo, "How It's Made – Balloon Time," retrieved May 9, 2023, https://vimeo.com/106184683.

Specification 39 ("DOT-39"), which provides the steel specification for the tank body, welding or brazing requirements, wall thickness, markings, testing, and other technical requirements; as well as specifying that the cylinders be non-reusable (i.e., non-refillable). Alternatively, to qualify for use in the U.S. market, NRSC can also be designed to meet the requirements of Transport Canada ("TC") Specification 39M or United Nations pressure receptable standard ISO 11118 for hazardous material packaging.

In-scope NRSCs range from 100 cubic inches to 1,526 cubic inches in capacity. Common sizes of the subject non-refillable steel cylinders, by diameter are 7.5 inches, 9 inches, 9.5 inches, and 12 inches, although they can be made in other sizes. The 9.5-inch model is the most common size.[16] Common service pressure ratings for in-scope NRSC are 260, 320, and 400 pounds per square inch ("PSI").

These physical characteristics distinguish NRSCs from refillable cylinders (not allowed by the DOT-39 specification), such as those for propane gas with sturdy handling collars, foot rings, and two-way valves; smaller "hand torch" non-refillable cylinders (containing propane, propylene, or butane) having elongated bodies and only one port; aluminum cylinders for reactive gasses (e.g., ammonia, ethylene oxide, hydrogen sulfide, nitric oxide, nitrogen dioxide, or sulfur dioxide); or seamless, higher pressure steel cylinders for industrial and medical gasses (e.g., argon, nitrogen, or oxygen).[17]

[16] Although some companies may have a preference for specific sizes, cylinder sizes do not typically differ based on application, with the exception of NRSC for helium, which are typically only sold in the 9-inch and 12-inch models. Preliminary conference transcript p. 81

[17] Non-Refillable Steel Cylinders from China, Investigation Nos. 701-TA-644 and 731-TA-1494 (Final), USITC Publication 5188, May 2021. See also Petition vol. II, p. 15.

Table I-2
NRSC: Appearance, dimensions, and pressure specifications for selected common cylinder sizes

Metric	Measure	7.5-inch model	9.5-inch model	12-inch model
Appearance	PNG file			
Height	Inches	14.6	16.4	17.6
Water capacity	Pounds	15.8	29.7	49.6
Diameter	Inches	7.5	9.5	12
Volume	Cubic inches	438	822	1,378
Service pressure	PSIG	260 or 400	260 or 300 or 400	260 or 320
Test pressure	PSIG	325 or 500	325 or 400 or 500	325 or 400

Source: Petition, exh. GEN 4, Certain Non-Refillable Steel Cylinders Brochures (Worthington Industries).

Note: All dimensions are approximate. Pressure is specified as "pounds per square-inch gauge" ("PSIG"). Recommended service and test pressures presented are for refrigerants and are dependent on gas type. The standard specification for all three cylinder sizes is DOT-39.

Manufacturing processes[18]

NRSCs are produced using low-carbon, flat-rolled (usually cold-rolled) steel. First, a collar press stamps the handling collar from cut-to-length strips of steel. Next, round disks of steel are press cut from flat-rolled steel coils. These circular disks are then drawn through a die to create cup-shaped hemispheric shells that become the top and bottom halves of the cylinder. The shell edges are trimmed to produce a precise line for welding and then holes are punched into the top shell for the dispensing valve and pressure-release device. The shells are then washed to remove any grit or particles that might impede painting or welding. The

[18] Unless otherwise specified, information in this section is from the following sources: Petition, part II, pp. 6-7 (PDF pp. 10-11) and Non-Refillable Steel Cylinders from China, Investigation Nos. 701-TA-644 and 731-TA-1494 (Final), USITC Publication 5188, May 2021. See also, Vimeo, "How It's Made – Balloon Time," retrieved May 9, 2023, https://vimeo.com/106184683.

pressure-release device is added to the top shell prior to both the top and bottom cylinder shells being conveyed to a welding station where the valve and handle are welded onto the top half of the cylinder (figure I-1a).

Handles are either made from stamped steel, which is welded directly to the top shell, or from a wire rod which is first welded to a plate or flange that is then welded to the top shell. The valve is also welded to the same plate or flange holding rod-style handles so that both the valve and handle can be attached to the shell at once. Stamped-style handles are attached to the shell in a separate weld from the valve.[19]

After the handles are attached, the two shells are then cooled prior to being placed together into the welding lathe. The lathe creates a precise weld between them to bond the two pieces together (figure I-1b). Each cylinder is tested to ensure it meets government specifications, including a dry-air leak test to ensure that the tank can be filled and pressurized without either leaking or rupturing.

[19] Beginning in 2020, Worthington began producing all of its NRSCs with a stamped-style handle due to customer preference and lower defect rates in handles of this style. Meanwhile, importer Quin Global claims that it requested rod-style handles when ordering from foreign producer Bhiwadi, as it claims these handles are stronger and less likely to break during shipping. Preliminary conference transcript pp. 52-53, 106-107.

Figure I-1
NRSC: Cross sections of an assembled cylinder and the weld-joint detail

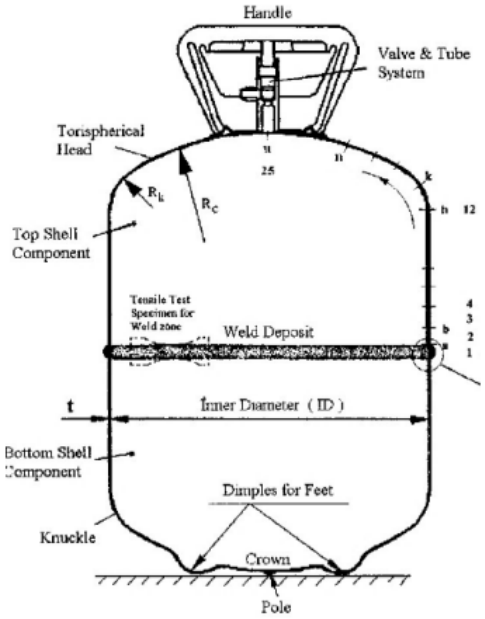

Figure I-1a: Cylinder cross-section with components and features labeled

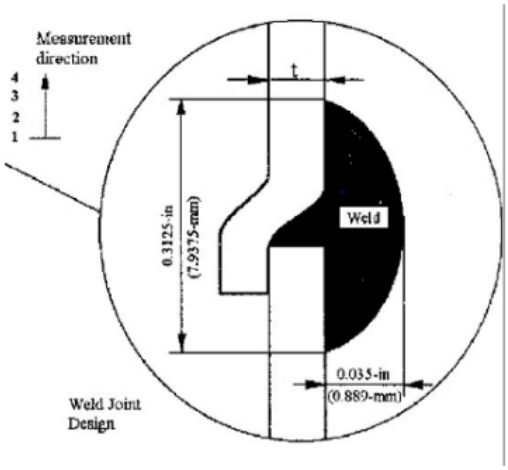

Figure I-1b: Weld-joint cross-section for joining together the top and bottom shells

Source: Petition, exhibit Gen-5.

Cylinders that pass inspections move onto the painting line, where they are coated with a liquid paint that is cured under infrared light. The choice of paint color can be decided by industry standards or customer preferences. For example, the Air-Conditioning, Heating, and Refrigeration Institute ("ACHRI") guidelines now require that all NRSC containing refrigerant gas be painted the same standard color known as "RAL 7044" or "PMS 413." The guidelines also require a red band to be painted on the shoulder or top of the cylinder to indicate when refrigerant cylinders contain flammable compounds.[20] A silkscreened label is added to the cylinder with required identifying information including the USDOT, TC, or UNISO specification number, service pressure, test pressure, manufacturer's registration number, date of manufacture and/or lot number, operating instructions, and specific penalty language against refilling the cylinder in violation of federal law. NRSC are typically packaged in an unsealed cardboard carton specified by the customer. These cartons are purchased by the purchasers of NRSC from corrugated-cardboard suppliers and shipped directly to the NRSC producer's facilities. The customer later fills the cylinders while in the carton and seals the box prior to shipment.

[20] Petition, exhibit GEN-6.

Although NRSCs do not have a stated shelf life, manufacturers encourage purchasers to fill cylinders as soon as practical. This is particularly important for NRSCs that will hold refrigerants. Before filling, the valve on refrigerant NRSC remains open, allowing the atmosphere to penetrate the inside of the cylinder. This can lead to degradation on the inside of the cylinder and contamination of the product going into the cylinder. While the length of time for degradation to occur varies significantly depending on atmospheric conditions, domestic producer Worthington claims that a cylinder could degrade in a matter of weeks or months in the worst-case scenario.[21] While DOT regulations do not include specific shelf life requirements, cylinder degradation could impact DOT requirements on certain wall thicknesses.[22] Worthington claims that potential degradation does not impact their ability to hold inventories, as they are in control of the climate and storage conditions in their warehouses.[23]

Domestic like product issues

No issues with respect to domestic like product have been raised in these investigations. The petitioner proposes that the Commission should define the domestic like product as all non-refillable steel cylinders coextensive with the scope of the investigations. Respondents did not comment on the petitioner's proposal.

The AIM Act

In December 2020, Congress enacted the AIM Act, which directs the U.S. Environmental Protection Agency (EPA) to phasedown production and consumption of hydrofluorocarbons (HFCs). HFCs are greenhouse gases that are commonly used in refrigerants. In October 2021, the EPA announced its final rule establishing provisions for implementation of the phasedown. The rule establishes a timeline for the phasedown of U.S. production and consumption of HFCs. It also prohibits the importation or filling of disposable (nonrefillable) cylinders filled with certain HFCs by January 1, 2025 and prohibits the sale and distribution of all disposable cylinders filled with certain HFCs by January 1, 2027.[24] In December 2021, Worthington filed a

[21] Preliminary conference transcript, pp. 71-73.
[22] Preliminary conference transcript, pp. 95-96.
[23] Preliminary conference transcript, p. 92.
[24] 86 FR 190, October 5, 2021.

petition for review of the latter rule regarding the sale and distribution of NRSCs with the U.S. Court of Appeals.[25] As of May 2023, the case has not been resolved.

In March 2023, the Pipeline and Hazardous Materials Safety Administration (PHMSA), proposed to adopt the same prohibition on the filling and transportation of certain HFCs in NRSCs.[26] The agency collected comments from interested parties on the proposed legislation between March 3 and May 2, 2023.

According to preliminary conference testimony, Worthington said the EPA rule initially led to uncertainty and an increase in demand for NRSC from customers trying to build a stock of refrigerant-filled cylinders in anticipation of the ban.[27] This increase in demand led to extended lead times for non-contract sales.[28] Worthington believes the rule regarding the importation and sale of NRSCs will be overturned, and claims that while the ban (if permitted) may have a negative impact on their refrigerant business, the majority of NRSCs made by Worthington go to customers outside of the refrigerants business.[29] Indian producer Bhiwadi claims that the majority of its NRSCs are produced for the refrigerant market and anticipates the EPA rules will significantly decrease its shipments to the United States. The company claims it plans to gradually reduce NRSC production and give up its DOT-39 manufacturing lines in at least one facility in response to these rules.[30] Indian producer Inox claims that the impending ban has led customers to put current orders and future offers on hold.[31]

Helium shortage

A global helium shortage beginning in 2021 was further exacerbated in 2022 by the Russian war in Ukraine.[32] According to USGS, world helium production decreased by

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[25] Cooling Post, "Worthington Joins Legal Challenge to Disposable Cylinder Ban," Cooling Post, "U.S. Cylinder Firm Seeks Protection from Indian Imports," May 10, 2023. https://www.coolingpost.com/world-news/us-cylinder-firm-seeks-protection-from-indian-imports/.

[26] 88 FR 42, March 3, 2023.

[27] Conference transcript, pp. 19 (Bowes), 47 (Powers).

[28] Conference transcript, p. 61 (Bowes).

[29] However, Worthington also stated that the largest end use for its NRSCs is refrigerants and that this segment represents a significant portion of the business. Conference transcript pp. 45-46 (Powers), 58-59 (Powers, Rosenthal, Bowes).

[30] Conference transcript pp. 101-102, 117 (Kaur).

[31] Inox, Postconference brief, p. 6 (PDF p. 12).

[32] DeCarlo, Samantha, and Samuel Goodman, "The Impact of Conflict on the Global Helium Shortage," *USITC Executive Briefings on Trade,* May 2022, https://usitc.gov/publications/332/executive_briefings/ebot_the_impact_of_conflict_on_the_global_helium_shortage.pdf.

approximately four million cubic meters (2.4 percent) in 2022, compared to 2021.[33] According to domestic producer Worthington, the supply shortage led to higher prices for their helium inputs. However, because of their contractual commitments with helium suppliers, Worthington claims they were able to maintain supply while other helium sellers, such as those at party supply stores, were not. This led to increased demand for Worthington as customers purchased NRSCs from Worthington to fill balloons at home rather than purchasing filled balloons from intermediaries.[34] Meanwhile, Indian producer Bhiwadi claims that all cylinder producers have experienced a decrease in demand due to the shortage.[35]

[33] USGS, "Mineral Commodities Summaries 2023: Helium," January 2023, https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-helium.pdf.

[34] Conference transcript p. 77 (Bowes).

[35] Conference transcript p. 101 (Kaur).

Part II: Conditions of competition in the U.S. market

U.S. market characteristics

NRSCs are portable, non-refillable steel tanks suitable for containing liquified or compressed gases such as refrigerant, helium, or other materials such as insulating foam sealant or adhesive. Non-refillable steel cylinders are composed of a welded tank with two ports, used with a valve and pressure release device, respectively, and a handling collar.[1] The petitioner stated that demand for NRSCs follows the strength of the U.S. economy.[2] Importers primarily fill NRSCs with gas or sealant and sell the NRSCs with their contents to their customers.

The sole U.S. producer and 8 of 13 importers indicated that the market was *** to distinct conditions of competition. Importers *** and *** reported that the NRSC market was subject to distinct conditions of competition because there is only one U.S. producer, Worthington. Importer *** reported that the NRSC market was subject to the availability and pricing of steel.

Apparent U.S. consumption of NRSCs increased in terms of quantity and value during 2020-2022. Apparent U.S. consumption in 2022 was *** percent higher in terms of quantity than in 2020, while apparent U.S. consumption in 2022 was *** percent higher in terms of value than in 2020.

[1] Petition, pp. 4-5.

[2] Conference transcript, p. 92 (Bowes).

Impact of section 232 tariffs

U.S. producer Worthington and importers were asked to report the impact of the section 232 tariffs on overall demand, supply, prices, and raw material costs. U.S. producer Worthington reported that the section 232 tariffs ***. The majority of importers reported that they did not know if the section 232 tariffs had impacted the NRSC market in the United States. Importer *** reported that the cost of NRSCs increased by 35 percent in 2022 due to the increased cost of steel and importer *** reported that the section 232 tariffs on steel products increased the cost and price of NRSCs in the U.S. market.

Channels of distribution

Worthington sold *** to end users while subject importers sold the *** to end users, as shown in table II-1.

Table II-1
NRSC: Share of U.S. shipments by source, channel of distribution, and period

Shares in percent

Source	Channel	2020	2020	2022
United States	Distributor	***	***	***
United States	End user	***	***	***
India	Distributor	***	***	***
India	End user	***	***	***
Nonsubject sources	Distributor	***	***	***
Nonsubject sources	End user	***	***	***
All import sources	Distributor	***	***	***
All import sources	End user	***	***	***

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

Geographic distribution

U.S. producer Worthington reported selling NRSCs to *** (table II-2). Importers reported selling NRSCs in all regions of the United States except the Pacific Coast. U.S. producer Worthington reported that *** percent of sales were within 100 miles of its 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, and *** percent between 101 and 1,000 miles.

Table II-2
NRSC: Count of U.S. producer's and U.S. importers' geographic markets

Count in number of firms reporting

Region	U.S. producer	India
Northeast	***	2
Midwest	***	2
Southeast	***	2
Central Southwest	***	2
Mountain	***	1
Pacific Coast	***	0
Other	***	0
All regions (except Other)	***	0
Reporting firms	1	4

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

Note: Other U.S. markets include AK, HI, PR, and VI.

Supply and demand considerations

U.S. supply

Table II-3 provides a summary of the supply factors regarding NRSCs from U.S. producer Worthington and India.

Table II-3
NRSC: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in units; ratio and share in percent; count in number of firms reporting

Factor	Measure	United States	India
Capacity 2020	Quantity	***	***
Capacity 2022	Quantity	***	***
Capacity utilization 2020	Ratio	***	***
Capacity utilization 2022	Ratio	***	***
Inventories to total shipments 2020	Ratio	***	***
Inventories to total shipments 2022	Ratio	***	***
Home market shipments 2022	Share	***	***
Non-US export market shipments 2022	Share	***	***
Ability to shift production (firms reporting "yes")	Count	***	***

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

Note: The responding U.S. producer accounted for all of U.S. production of NRSCs in 2022. Responding foreign producer/exporter firms accounted for more than half of U.S. imports of NRSCs from India during 2022. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

Domestic production

Based on available information, U.S. producer Worthington has the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of U.S.-produced NRSCs to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of some unused capacity and some available inventories. Factors mitigating the responsiveness of supply include a limited ability to shift shipments from alternate markets and the inability to shift production to or from alternate products.

U.S. producer Worthington reported increasing production capacity and production from 2020 to 2022. Production capacity increased at a *** than production leading to a decrease in capacity utilization from 2020 to 2022. U.S. producer Worthington's inventories relative to total shipments increased from 2020 to 2022. U.S. producer Worthington reported that NRSCs degrade over time as they are exposed to the open air until filled. This can introduce contaminants to products that are stored in NRSCs.[3] U.S. producer Worthington reported that it controls the climate in its storage facilities and NSRCs degrading over time does not impact Worthington's decision or ability to hold inventories of NRSCs.[4] Exports remained below *** percent of Worthington's reported shipments throughout the period. U.S. producer Worthington reported it was *** to produce other products on the same equipment used to produce NRSCs.

Subject imports from India

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

Indian producers reported increased capacity and production that led to increased capacity utilization from 2020 to 2022. Indian producers' inventories relative to total shipments remained largely constant from 2020 to 2022. Responding Indian producers reported selling just over *** of shipments in their home market but under *** percent of shipments to markets other than the United States. *** responding Indian producer reported being able to

[3] Conference transcript, pp. 71-73 (Powers).
[4] Conference transcript, p. 92 (Powers).

produce other products on the same equipment used to produce NRSCs. Foreign producer *** reported producing cylinders for LPG, ammonia, and chlorine on the same equipment used to produce NRSCs.

Imports from nonsubject sources

Based on official import statistics, nonsubject imports accounted for 88.3 percent of total U.S. imports in 2022. Per official import statistics, the largest sources of nonsubject imports during 2022 were China and Mexico. Combined, these countries accounted for 41.3 percent of nonsubject imports in 2022.

Supply constraints

U.S. producer Worthington reported that *** since January 1, 2020. Worthington reported that ***. It reported that it was forced to ***. The majority of importers (7 of 11) reported that they had not experienced supply constraints since January 1, 2020. Importer *** reported that it lost sales due to supply constraints, lack of availability of NRSCs, and NRSCs having a lead time of up to a year. Importer *** reported that supply constraints and long lead times led to scaled back production in its plant.

U.S. demand

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

End uses and cost share

U.S. demand for NRSCs depends on the demand for U.S.-produced downstream products that fill NRSCs, such as refrigerants, helium, and foam adhesives. Reported end uses include applications such as in HVAC systems and construction. NRSCs account for a small to moderate share of the cost of the end-use products in which they are used. Reported cost shares for some end uses were as follows:

- Helium gas ***[5]

[5] Petitioner postconference brief p. 66.

- Refrigerant gas 407H ***
- Refrigerant gas R404A ***
- Refrigerant gas R407C ***
- Refrigerant gas R410A ***
- Refrigerant gas R134a ***
- Unspecified refrigerant gas ***
- HVAC systems ***
- Constructions applications ***

Business cycles

U.S. producer Worthington reported that ***. Worthington reported that the NRSC market was *** to distinct conditions of competition. The majority of importers reported that there are no business cycles in the NRSC market and that the NRSC market was not subject to distinct conditions of competition. Importers ***, ***, and *** reported that the NRSC market is cyclical and there is increased demand in the Spring and Summer for the products distributed in NRSCs. Importer *** reported that there is only one manufacture of NRSCs in the United States and this creates distinct conditions of competition in the U.S. market. Importer *** reported that Worthington has a monopoly in the United States for a product for which there are no substitutes, forcing the purchaser to absorb any price increases. Importer *** reported that the NRSC market is heavily tied to the steel market which creates distinct conditions of competition in the U.S. market.

Demand trends

U.S. producer Worthington reported that domestic demand had *** since January 1, 2020. Worthington reported that there was unprecedented demand starting in late 2020 and continuing throughout 2021.[6] This unprecedented demand was caused by a number of factors, namely increased demand for products stored in NRSCs due to increased activity in the construction sector, and panic buying as end users sought to deal with the market uncertainty caused by EPA regulations.[7] Demand returned to normal levels in 2022.[8]

[6] Conference transcript, pp 46-47 (Powers).
[7] Conference transcript, p. 47 (Powers).
[8] Conference transcript, p. 48 (Rosenthal).

Importer responses to changes in domestic demand were mixed, while the majority of importers reported that foreign demand had remained constant since January 1, 2020 (table II-4). Importer Bhiwadi Cylinders reported increased demand for NSRCs in 2021 partially in response to EPA regulation but that this increase in demand had subsided by 2022.[9] Importer *** reported that domestic demand had fluctuated down due to EPA regulations on HFC refrigerants that can be filled into NRSCs. Importer *** reported that demand for NRSCs in 2023 was expected to be similar to 2020.

Table II-4
NRSC: Count of firms' responses regarding overall domestic and foreign demand, by firm type

Count in number of firms reporting

Market	Firm type	Steadily Increase	Fluctuate Up	No change	Fluctuate Down	Steadily Decrease
Domestic demand	U.S. producers	***	***	***	***	***
Domestic demand	Importers	0	3	5	4	0
Foreign demand	U.S. producers	***	***	***	***	***
Foreign demand	Importers	0	1	4	0	0

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

Substitute products

U.S. producer Worthington and all responding importers reported that there were *** for NRSCs.

Substitutability issues

This section assesses the degree to which U.S.-produced NRSCs and imports of NRSCs from subject countries can be substituted for one another by examining the importance of certain purchasing factors and the comparability of NRSCs from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderate-to-high degree of substitutability between domestically produced NRSCs and NRSCs imported from India.[10] Factors contributing to this level of substitutability include that U.S. producer

[9] Conference transcript, p. 101 (Kaur).

[10] The degree of substitution between domestic and imported NRSCs depends upon the extent of product differentiation between the domestic and imported products and reflects how easily purchasers can switch from domestically produced NRSCs to the NRSCs imported from subject countries (or vice versa) when prices change. The degree of substitution may include such factors as relative prices (discounts/rebates), quality differences (e.g., grade standards, defect rates, etc.), and differences in

(*continued*...)

Worthington and importers ***. Factors mitigating substitutability include quality, supply continuity, and lead times.

Factors affecting purchasing decisions

Purchasers responding to lost sales and lost revenue allegations[11] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for NRSCs. The major purchasing factors identified by firms include availability/supply, quality, price/cost, and lead times.

Most important purchase factors

The most often cited top three factors firms consider in their purchasing decisions for NRSCs were availability/supply (8 firms), quality (5 firms), and price/cost (2 firms) as shown in table II-5. Availability/supply was the most frequently cited first-most important factor (cited by 4 firms); Quality was the most frequently reported second-most important factor (3 firms); and availability/supply and quality was the most frequently reported third-most important factors (2 firms each).

Table II-5
NRSC: Count of ranking of factors used in purchasing decisions as reported by purchasers, by factor

Count in number of firms reporting

Factor	First	Second	Third	Total
Availability / Supply	4	2	2	8
Quality	0	3	2	5
Price / Cost	0	1	1	2
Lead times	2	0	0	2

Source: Compiled from data submitted in response to Commission questionnaires.
Note: Other factors include lead times.

Lead times

U.S. producer Worthington reported that approximately *** of NRSCs were sold from U.S. inventories with lead times averaging *** days while the remaining *** were produced-to-order with lead times averaging *** days. Importers reported that the vast majority

sales conditions (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.).

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

(*** percent) of NRSCs came from foreign inventories with lead times averaging *** days and the remainder were produced-to-order with lead times averaging *** days.

Comparison of U.S.-produced and imported NRSCs

In order to determine whether U.S.-produced NRSCs can generally be used in the same applications as imports from India; U.S. producer Worthington and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in tables II-6 to II-7, *** the majority of importers reported that NRSCs from the United States, India, and nonsubject countries are *** interchangeable. Importer *** reported that customer requirements such as cartons, valves, handles, and paint limit the interchangeability of NRSCs from the United States, India, and nonsubject countries making them sometimes interchangeable.

Table II-6
NRSC: Count of U.S. producers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Count in number of firms reporting

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. India	***	***	***	***
U.S. vs. other	***	***	***	***
India vs. Other	***	***	***	***

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

Table II-7
NRSC: Count of U.S. importers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Count in number of firms reporting

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. India	11	0	1	0
U.S. vs. other	10	1	1	0
India vs. Other	10	1	1	0

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

In addition, U.S. producer Worthington and importers were asked to assess how often differences other than price were significant in sales of NRSCs from the United States, subject, or nonsubject countries. As seen in tables II-8 and II-9, Worthington reported that there are *** differences other than price between NRSCs from the United States, India, and nonsubject countries. Importers' responses on the differences other than price were mixed. Importers *** reported that NRSCs from the United States have a higher defect rate and shorter shelf life than NRSCs from India or China. Importer ***

reported that availability of supply is an important factor in purchasing NRSCs and that purchasers are willing to pay the higher prices that result from freight costs from India since domestic producers have such long lead times. Importer *** reported that there is only one domestic producer in the NRSCs market and any supply chain issues with that producer will cause lead times to vary greatly and it is important to have access to other producers to ensure availability of supply.

Table II-8
NRSC: Count of U.S. producers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Count in number of firms reporting

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. India	***	***	***	***
U.S. vs. other	***	***	***	***
India vs. Other	***	***	***	***

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

Table II-9
NRSC: Count of U.S. importers reporting the significance of differences other than price between product produced in the United States and in other countries reported, by country pair

Count in number of firms reporting

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. India	4	1	2	5
U.S. vs. other	2	1	2	5
India vs. Other	3	0	1	5

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

Part III: U.S. producer's production, shipments, and employment

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in Part I of this report and information on the volume and pricing of imports of the subject merchandise is presented in Part IV and Part V. Information on the other factors specified is presented in this section and Part VI and (except as noted) is based on the questionnaire response of Worthington Industries ("Worthington") that accounted for 100 percent of U.S. production of NRSC during 2022.

U.S. producer

The Commission issued a U.S. producer questionnaire to two firms based on information contained in the petitions. One firm provided usable data on their operations. Staff believes that this response represents 100 percent of U.S. production of NRSC.

Table III-1 lists the responding U.S. producer of NRSC, its production locations, positions on the petitions, and shares of total production.

Table III-1
NRSC: U.S. producer Worthington, its positions on the petitions, production locations, and share of reported production, 2022

Share in percent

Firm	Position on petitions	Production locations	Share of production
Worthington	Petitioner	Columbus, OH Paducah, KY	100.0

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

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

Table III-2
NRSC: U.S. producer Worthington's ownership, related and/or affiliated firms

Reporting firm	Relationship type and related firm	Details of relationship
Worthington	Related producer: Worthington - Amtrol-Alfa (Portugal)	Facility acquired from Amtrol by Worthington in 2017

Source: Conference transcript, pp. 12 (Choudhary),16 (Bowes).

As indicated in table III-2, Worthington is related to a foreign producer of in-scope products from a non-subject country and *** related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, Worthington reported that it directly imported the subject merchandise and reported *** purchase the subject merchandise from U.S. importers.[1]

[1] Regarding the acquisition of the NRSC production facilities in Portugal, Worthington stated in its conference testimony that, "Worthington was looking to diversify and strengthen its global cylinders business by adding Amtrol's foreign and domestic cylinders businesses, including its well water and expansion tanks, where Amtrol was the market leader," and that, "Along with that business came Amtrol's non-refillable cylinders line in West Warwick, Rhode Island, and Paducah, Kentucky. Amtrol also had a non-refillable cylinders production facility in Portugal which Worthington also acquired. We hoped those lines would complement and create synergies with Worthington's larger production line at its Columbus, Ohio, facility, allowing us to cut our costs and make us more competitive with the low-priced imports." Conference transcript, p. 16 (Bowes).

Table III-3 presents events in the U.S. industry since January 1, 2020.

Table III-3
NRSC: Important industry events since 2020

Item	Firm	Event
Facility upgrades	Worthington	**2020-2022:** Worthington invested *** on upgrades at their Paducah facility. This project included ***.
Expansion	Worthington	**Early 2021:** Worthington invested $21 million in a new DOT-39 cylinder production line in Columbus, Ohio and hired 90 people to facilitate production. The line was completed in February 2022 and became fully operational the following month.
Implementation of legislation	EPA	**October 2021:** The EPA, under direction of the AIM Act, announced its final rule establishing provisions for implementation of the phasedown of hydrofluorocarbons (HFCs). The rule prohibits the importation and filling of disposable (nonrefillable) cylinders filled with HFCs by 2025, and prohibits the sale and distribution of all disposable cylinders filled with HFCs by 2027. In December 2021, Worthington filed a legal petition for review of this rule with the U.S. Court of Appeals. As of May 2023, the case has not been resolved.
Production curtailment	Worthington	**2022-2023:** Worthington reduced production at its Columbus facility. The new DOT-39 line was reduced from *** to *** while older lines were reduced from *** to ***. All 90 employees initially hired to work the new line have been laid off or reassigned.
Proposed legislation	PHMSA	**March 2023:** The Pipeline and Hazardous Materials Safety Administration (PHMSA), proposed to adopt EPA's prohibition on the filling and transportation of certain HFCs in NRSC.

Source: Preliminary conference transcript pp. 10,18,21,28,75; Petitoner's postconference brief pp. 7-8,11; 86 FR 190, October 5, 2021; Cooling Post, "Worthington Joins Legal Challenge to Disposable Cylinder Ban," December 4, 2021, https://www.coolingpost.com/world-news/worthington-joins-legal-challenge-to-disposable-cylinder-ban/; 88 FR 42, March 3, 2023.

Producers in the United States were asked to report any change in the character of their operations or organization relating to the production of NRSCs since 2020. Worthington indicated in its questionnaire responses that it had experienced such changes. Table III-4 presents the changes identified by Worthington.

Table III-4
NRSC: U.S. producer Worthington's reported changes in operations, since January 1, 2020

Item	Firm name and narrative response on changes in operations
Production curtailments	***
Expansions	***
Other	***

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

U.S. production, capacity, and capacity utilization

Table III-5 presents Worthington's installed overall capacity, practical overall capacity, and practical NRSC capacity and production on the same equipment. Production capacity at Worthington's ***.[2] Worthington's practical capacity and production increased each year across the period reported, with a *** percent increase in capacity from 2020 to 2022 and a *** percent increase in production of

[2] Regarding the ability to switch production to other products, Worthington stated that, ***. U.S. producer questionnaire response, section II-4b.

NRSC across the same period. In the case of capacity, the bulk of the increase occurred between 2021-22, which saw a *** percent increase in capacity.[3] Production growth occurred at a more consistent rate, with a *** percent increase from 2020-21, followed by a *** percent increase from 2021-22.[4] The *** rise in production levels from 2021-22 relative to the growth in capacity meant that capacity utilization fell *** percentage points in 2022 compared to 2021, with 2022 capacity utilization also showing a net decline of *** percentage points compared to 2020 levels.

[3] Following the Commission's 2020 preliminary ruling in the prior investigation covering NRSCs from China, Worthington invested $21 million in a new, DOT-39 certified NRSC production line at its Columbus, OH facility, construction of which began in 2021 and was completed in February 2022, following delays due to Covid-19. Conference transcript, pp. 18-20 (Bowes); U.S. producer questionnaire response, section II-2a.

[4] In its conference testimony, Worthington described how, "over late 2021 and end of 2022, unprecedented levels of construction and remodel activity created a spike in demand for cylinders for foam and adhesives." Conference transcript, p. 19 (Bowes). In its questionnaire response, Worthington noted that ***. U.S. producer questionnaire response, section II-2b.

Table III-5
NRSC: U.S. producer Worthington's installed and practical capacity and production on the same equipment as subject production, by period

Capacity and production in units; Capacity utilization in percent

Item	Measure	2020	2021	2022
Installed overall	Capacity	***	***	***
Installed overall	Production	***	***	***
Installed overall	Utilization	***	***	***
Practical overall	Capacity	***	***	***
Practical overall	Production	***	***	***
Practical overall	Utilization	***	***	***
Practical NRSC	Capacity	***	***	***
Practical NRSC	Production	***	***	***
Practical NRSC	Utilization	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Note: Installed overall production capacity is the level of production that a firm's establishment(s) could have attained, assuming the firm's optimal product mix, and based solely on existing capital investments, i.e., machinery and equipment that is in place and ready to operate. This capacity measure does not account for other constraints to production such as existing workforce constraints, availability of raw materials, or downtime for maintenance, repair, and clean-up. This capacity measure is sometimes referred to as "nameplate" or "theoretical" capacity in some industries.

Note: Practical overall production capacity is the level of production that a firm's establishment(s) could reasonably have expected to attain, accounting for the firm's actual product mix over the period for which data were collected. This capacity measure is based on not only existing capital investments, i.e., machinery and equipment that is in place and ready to operate but also non-capital investment constraints, such as (1) normal operating conditions, including normal downtime for maintenance, repair, and cleanup; (2) the firm's existing in-place and readily available labor force; (3) availability of material inputs; and (4) any other constraints that may have limited the firm's ability to produce the reported products. Importantly, this capacity measure is the maximum "practical" production a firm could have achieved without hiring new personnel or expanding the number of shifts operated in the period.

Note: Practical NRSC production capacity is the level of production of NRSC that a firm's establishment(s) could reasonably have expected to attain. The same assumptions apply to this capacity measure as for practical overall capacity, but only includes the portion of practical overall capacity allocated to the production of NRSC based on the actual product mix experienced over the period.

Figure III-1
NRSC: U.S. producer Worthington's production, capacity, and capacity utilization, by period

* * * * *

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

Table III-6 presents Worthington's reported narratives regarding practical capacity constraints.

Table III-6
NRSC: U.S. producer Worthington's reported constraints to practical overall capacity since January 1, 2020

Item	Firm name and narrative response on constraints to practical overall capacity
Existing labor force	***
Other constraints	***

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

Alternative products

Worthington ***.

U.S. producer's U.S. shipments and exports

Table III-7 presents Worthington's U.S. shipments, export shipments, and total shipments. Worthington's total shipments, by quantity, showed an overall decline of *** percent from 2020-22, despite an initial *** percent increase in total shipments from 2020-21. The 2020-21 rise in total shipments, and the subsequent decline from 2021-22, were driven by fluctuations in Worthington's U.S. shipments, which increased *** percent in 2020-21 and decreased *** percent in 2021-22, for a net decline of *** percent from 2020-22.[5] Worthington's export shipments experienced the inverse of the trends in total and U.S shipments, with exports initially falling *** percent from 2020-21, and then rising *** percent from 2021-22, resulting in a net rise of *** percent from 2020-22.[6] Despite the irregular rise in export shipments from 2020-22, the trends in total quantity, value, and unit value during the period reported are driven *** by trends in the quantity, value, and unit value of Worthington's U.S. shipments, which never accounted for less than *** percent of Worthington's total shipments of NRSCs, either by quantity or value during the period reported.

Whereas Worthington's total shipments and U.S. shipments, by quantity, showed irregular declines from 2020-22, total shipments and U.S. shipments, by value, consistently rose across all years reported, with an overall increase of *** percent and *** percent, respectively, in 2022 compared to 2020. The rise in the value of total shipments was driven *** by the rise in the value of U.S. shipments. While export shipments, by value, also increased from 2020-22, they first declined from 2020-21 by *** percent prior to rebounding in 2022, for a *** percent net rise from 2020-22. However, *** precent of the rise in the value of total shipments from 2020-22 was nonetheless driven by the rise in the

[5] The increase in Worthington's U.S. shipments from 2020-21 took place as "demand {was} increasing to historic levels,", whereas in 2022, Worthington "experienced significantly increased import competition from Indian, leading to falling production and sales volume, despite continuing high demand." Conference transcript, pp. 19-20, 22 (Bowes).

[6] Worthington's principal export markets are ***. U.S. producer questionnaire response, section II-8.

value of U.S. shipments, rather than exports, despite exports showing a higher relative increase in 2022 compared to 2020.

Similar to the consistent increases in the value of total and U.S. shipments from 2020-22, unit values for total and U.S. shipments also rose consistently across the reported period, with the 2020-21 increases in value outpacing the increases in quantity over the same period. The vast majority of the net increase in unit values for both total and U.S. shipments came during 2021-22, which each saw *** percent rises in the unit values of Worthington's total and U.S. shipments of NRSCs. As export shipments were the only shipment type which declined in value over any period, exports were also the only shipment type which saw a decline in unit value, when simultaneous declines in the quantity and value of export shipments in 2020-21 led to a *** percent decline in unit value. The unit value of export shipments then rose from 2021-22, for a net increase of *** percent from 2020-22.

Table III-7
NRSC: U.S. producer Worthington's total shipments, by destination and period

Quantity in units; value in 1,000 dollars; unit value in dollars per unit; shares in percent

Item	Measure	2020	2021	2022
U.S. shipments	Quantity	***	***	***
Export shipments	Quantity	***	***	***
Total shipments	Quantity	***	***	***
U.S. shipments	Value	***	***	***
Export shipments	Value	***	***	***
Total shipments	Value	***	***	***
U.S. shipments	Unit value	***	***	***
Export shipments	Unit value	***	***	***
Total shipments	Unit value	***	***	***
U.S. shipments	Share of quantity	***	***	***
Export shipments	Share of quantity	***	***	***
Total shipments	Share of quantity	***	***	***
U.S. shipments	Share of value	***	***	***
Export shipments	Share of value	***	***	***
Total shipments	Share of value	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table III-8 presents Worthington's U.S. shipments by type. Worthington's U.S. shipments, commercial U.S. shipments, and internal consumption, by quantity, all reported initial increases from 2020-21, followed by subsequent declines from 2021-2022. Of these shipment types, only internal consumption showed a net increase in 2022 compared to 2020 (***), while both commercial U.S. shipments and total U.S. shipments had net decreases of *** and *** percent, respectively, over the same period. The magnitude of the fluctuations in internal consumption from year to year and across the period reported were smaller compared to fluctuations in commercial shipments, as internal consumption never changed more than *** percent year to year, while commercial U.S. shipments reported year to year differences as large as *** percent.

Unlike shipments by quantity, both commercial U.S. shipments and internal consumption, by value, followed the same trend of consecutive increases throughout the period reported. The combination of *** percent and *** percent increases in the value of commercial U.S. shipments and internal consumption, respectively, from 2020 to 2022, resulted in a *** percent rise in the value of total U.S. shipments across the same 2020-22 period. The larger total value of commercial U.S. shipments meant that, despite internal consumption

increasing from 2020-22 by a larger relative proportion, the rise in commercial U.S. shipments contributed *** percent of the growth in overall value of U.S. shipments from 2020-22.[7]

Despite the increases in quantity reported for each shipment type from 2020-21, these increases were outpaced by increases in value, resulting in unit value increases ranging between *** and *** percent from 2020-21. Unit values continued to increase from 2021-22, although by a larger rate than from 2020-21, due to the combination of fewer quantities at higher values in 2022 compared to 2021. The *** percent growth in the unit value of total U.S. shipments from 2020-22 was thus driven by both *** percent growth in the unit value of internally consumed NRSCs and *** percent growth in the unit value of commercial U.S. shipments. As a share of quantity, commercial U.S. shipments stayed within *** percentage points of its 2020 share throughout the period reported, and within *** percentage points as a share of value, with 2020-22 net changes of less than or equal to *** percentage points in both instances.

Table III-8
NRSC: U.S. producer Worthington's U.S. shipments, by type and period

Quantity in units; Value in 1,000 dollars; Unit value in dollars per unit; Shares in percent

Item	Measure	2020	2021	2022
Commercial U.S. shipments	Quantity	***	***	***
Internal consumption	Quantity	***	***	***
U.S. shipments	Quantity	***	***	***
Commercial U.S. shipments	Value	***	***	***
Internal consumption	Value	***	***	***
U.S. shipments	Value	***	***	***
Commercial U.S. shipments	Unit value	***	***	***
Internal consumption	Unit value	***	***	***
U.S. shipments	Unit value	***	***	***
Commercial U.S. shipments	Share of quantity	***	***	***
Internal consumption	Share of quantity	***	***	***
U.S. shipments	Share of quantity	***	***	***
Commercial U.S. shipments	Share of value	***	***	***
Internal consumption	Share of value	***	***	***
U.S. shipments	Share of value	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[7] Worthington's internal consumption reported in table III-8 is comprised *** of helium-filled NRSCs that are sold through "retail outlets and two-party channels," and helium-filled NRSCs is the second-largest end use for Worthington's U.S. shipments of NRSCs. U.S. producer questionnaire response, sections II-8 and II-14; Conference transcript, p. 46 (Powers).

Captive consumption

Section 771(7)(C)(iv) of the Act states that–[8]

> *If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that–*
>
> *(I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,*
>
> *(II) the domestic like product is the predominant material input in the production of that downstream article, and*
>
> *then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.*

Transfers and sales

As reported in table III-8 above, internal consumption accounted for between *** percent and *** percent, by quantity, and between *** percent and *** percent, by value, of the U.S. producer's U.S. shipments of NRSCs.

First statutory criterion in captive consumption

The first requirement for application of the captive consumption provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. Worthington reported internal consumption of NRSCs for the production of downstream helium-filled NRSCs.[9] Worthington *** diverting NRSCs intended for internal consumption to the merchant market.

Second statutory criterion in captive consumption

The second criterion of the captive consumption provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captively produced. With respect to the downstream articles resulting from

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

[9] Conference transcript, pp. 46 (Powers) and 77 (Bowes); U.S. producer questionnaire response, section II-14.

captive production, NRSCs reportedly comprise *** percent of the finished cost of the downstream product by value, and *** percent by quantity.

Table III-9
NRSC: U.S. producer Worthington's share of inputs into downstream products

Shares in percent

Material input	Share of value/cost	Share of quantity
NRSC	***	***
Other inputs	***	***
All material inputs	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---"

U.S. producer's inventories

Table III-10 presents Worthington's end-of-period inventories and the ratio of these inventories to Worthington's production, U.S. shipments, and total shipments**.** Worthington's end-of-period inventories showed a net increase of *** percent from 2020-22, despite an initial decrease of *** percent from 2020 to 2021.[10] The subsequent *** percent increase in inventory from 2021-22 occurred as Worthington's new production line was becoming fully operational, and "rather than being able to fill this new capacity in a strong market, Worthington's orders actually shrank in the second half of 2022, as our customers instead sourced from Indian suppliers."[11] Inventory as a ratio to U.S. production, U.S. shipments, and total shipments also showed initial decreases of between *** and *** percentage points from 2020 to 2021, followed by a 2021-22 rise which resulted in net increases from 2020-22.[12]

[10] The dip in inventory from 2020-2021 coincided with a surge in demand attributed by Worthington to ***. U.S. producer questionnaire response, section II-2b. Demand reportedly continued to increase as, "over late 2021 and end of 2022, unprecedented levels of construction and remodel activity created a spike in demand for cylinders for foam and adhesives. At the same time, the EPA announced a move to phase out certain refrigerants, which led to a large increase in the demand for disposable cylinders by customers trying to build a stock of refrigerant-filled cylinders in anticipation of that ban." Conference transcript, p. 19 (Bowes).

[11] Conference transcript, p. 21 (Bowes).

[12] Worthington is ***. U.S. producer questionnaire response, section II-3f.

Table III-10
NRSC: U.S. producer Worthington's inventories and their ratio to select items, by period

Quantity in units; Inventory ratios in percent

Item	2020	2021	2022
End-of-period inventory quantity	***	***	***
Inventory ratio to U.S. production	***	***	***
Inventory ratio to U.S. shipments	***	***	***
Inventory ratio to total shipments	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

U.S. producer's imports from subject sources

Worthington's imports of NRSCs are presented in table III-11. Worthington *** from subject sources during ***. In ***, these imports did not exceed *** percent as a ratio to Worthington's production. As described in further detail in table III-12 below, Worthington ***.[13]

Table III-11
NRSC: U.S. producer Worthington's U.S. production, subject imports, and ratio of subject imports to production, by source and period

Quantity in units; ratio in percent

Item	Measure	2020	2021	2022
U.S. production	Quantity	***	***	***
Imports from ***	Quantity	***	***	***
Imports from *** to U.S. production	Ratio	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[13] Worthington reported that ***. Worthington's importer questionnaire response, section II-5a.

Table III-12
NRSC: U.S. producer Worthington's reasons for importing

Item	Narrative response on reasons for importing
Worthington's reasons for importing	***

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

U.S. producer's purchases of imports from subject sources

Worthington ***.

U.S. employment, wages, and productivity

Table III-13 shows U.S. producer Worthington's employment-related data. From 2020 to 2021, Worthington reported a decline of *** percent for total production and related workers ("PRWs"), followed by an increase of *** percent from 2021 to 2022.[14] Worthington's hourly wages and wages paid both increased each year from 2020 to 2022, with two-year increases of *** percent and *** percent, respectively. Although productivity rose from 2020-21, the subsequent decline in 2021-22 resulted in a net decline of *** percent across 2020-22. This contributed to an increase of *** percent in unit labor costs during the period of investigation, the majority of which occurred between 2021-22, which saw a *** percent rise in unit labor costs.

[14] In February 2022, Worthington hired 90 people to staff the newly installed NRSC production line at its Columbus, OH facility, and "also increased wages and bonuses as a commitment to {its} workforce. The surging volumes of imports from India, however, have prevented {Worthington} from fully utilizing this new capacity, which is now largely idle. The result of {Worthington} being unable to fully utilize new and existing capacity has been the loss of substantially all of those 90 new jobs." Conference transcript, pp. 28-29 (Powers); U.S. producer questionnaire response, section II-10.

Table III-13
NRSC: U.S. producer Worthington's employment related information, by item and period

Item	2020	2021	2022
Production and related workers (PRWs) (number)	***	***	***
Total hours worked (1,000 hours)	***	***	***
Hours worked per PRW (hours)	***	***	***
Wages paid ($1,000)	***	***	***
Hourly wages (dollars per hour)	***	***	***
Productivity (units per hour)	***	***	***
Unit labor costs (dollars per unit)	***	***	***

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

Part IV: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 30 firms believed to be importers of subject NRSCs, as well as to all U.S. producers of NRSCs.[1] Usable questionnaire responses were received from 15 companies, representing *** percent of U.S. imports from India in 2022 under HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090, "basket" categories which may contain nonsubject merchandise, as well.[2] [3] Table IV-1 lists all responding U.S. importers of NRSCs from India and other sources, their locations, and their shares of U.S. imports, in 2022.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data from third-party sources, may have accounted for more than one percent of total imports under HTS statistical reporting numbers 7311.00.0060 and 7311.00.0090 in 2022.

[2] Although subject merchandise may also enter under HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065, petitioner believes that the "vast majority, if not all" subject imports enter under 7311.00.0060 and 7311.00.0090. Preliminary conference transcript, p. 88 (Ringel). Responding Indian producers/exporters Bhiwadi Cylinders Private Limited, Mauria Udyog Limited, and Inox India Limited also did not include HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065 in their estimate of imports.

[3] HTS statistical reporting numbers 7310.29.0030 and 7310.29.0065 were established and effective as of July 1, 2020. Prior to July 1, 2020, in-scope merchandise may have entered under HTS statistical reporting numbers 7310.29.0025 (Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel...; other; containers, of circular cross section, of a volume capacity between 11.4 liters and 26.6 liters, of a kind used for the conveyance of goods) or 7310.29.0050 (Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel…; other; other). Both HTS 7310.29.0025 and 7310.29.0050 were discontinued as of July 1, 2020.

Table IV-1
NRSC: U.S. importers, their headquarters, and share of imports within each source, 2022

Shares in percent

Firm	Headquarters	India	Nonsubject sources	All import sources
A-Gas	Bowling Green, OH	***	***	***
Bhiwadi Cylinders	Bhiwadi, DE	***	***	***
BMP USA	Tampa, FL	***	***	***
C-GAS	Houston, TX	***	***	***
Chemours	Wilmington, DE	***	***	***
Daikin America	Orangeburg, NY	***	***	***
First Continental	Rochelle Park, NJ	***	***	***
FluoroFusion	Clayton, NC	***	***	***
iGAS	Tampa, FL	***	***	***
Mondy Global	San Antonio, TX	***	***	***
National Refrigerants	Philadelphia, PA	***	***	***
Pentrade	Clayton, NC	***	***	***
Unique Industries	Philadelphia, PA	***	***	***
Weitron	Newark, DE	***	***	***
Worthington	Columbus, OH	***	***	***
All firms	Various	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Note: ***. U.S. importer questionnaire, section II-2a and II-7.

U.S. imports

Table IV-2 presents data for U.S. imports of NRSCs from India and all other sources. Imports of NRSCs from India increased continuously from 2020-2022, for an *** two-year increase. The bulk of this increase occurred between 2020 and 2021, which saw an *** increase. Six firms (***) reported subject imports in 2021 having not reported subject imports in 2020.[4] However, *** percent of the 2020-21 increase in subject imports was nonetheless driven by subject imports

[4] ***. Email from ***, to USITC staff, May 12, 2023.

by ***, the two largest importers during the period of investigation.[5] Imports from nonsubject sources, on the other hand, saw an *** percent decrease from 2020-21, before increasing *** percent 2021-22 for a net decrease of *** percent over the period reported. The 2021-22 increase in nonsubject imports was driven almost entirely by increases in nonsubject imports by ***.[6] Despite the decline in nonsubject imports over the period, the growth in subject imports still drove consecutive increases in total imports, for a net increase of *** percent from 2020 to 2022.

In terms of value, imports from India and nonsubject sources followed similar trends as those described above, with Indian imports growing continuously across the period and nonsubject imports showing an irregular decrease. However, the *** increase in the value of Indian imports from 2020-22 outpaced the growth in quantity, leading to a *** percent increase in the unit value of Indian imports from 2020-22. Nonsubject imports by value decreased *** percent from 2020-21, which, when combined with the larger relative decrease in quantity over the same period, led to an *** rise in the unit value of nonsubject imports from 2020-21. Nonsubject imports' unit value then fell slightly by *** percent from 2021-22.

Both in terms in quantity and value, the share of total imports accounted for by Indian and nonsubject imports reversed over the period reported, with nonsubject imports in 2020 accounting for the *** of total imports by quantity and value, and Indian imports accounting for the *** of imports in 2022. The bulk of this change occurred from 2020-21, when Indian imports increased as a share of quantity and value by *** and *** percentage points, respectively. Despite the net decline in both quantity and value over the period reported, nonsubject imports nonetheless increased by *** and *** percentage

[5] *** stated that its increase in subject imports from 2020-22 was due to two factors: ***. Email from *** to USITC staff, May 15, 2023.

[6] *** nonsubject imports came exclusively from ***. *** nonsubject imports came exclusively from ***, and *** nonsubject imports came from ***. Importer questionnaire responses, section II-6a.

points as a share of total quantity and value, respectively, from 2021-22.[7] As a ratio to U.S. production, imports from all sources increased irregularly by *** percentage points from 2020-22, driven entirely by the *** percentage point increase in the ratio of Indian imports to U.S. production.

Table IV-2
NRSC: U.S. imports by source and period

Quantity in units; Value in 1,000 dollars; Unit value in dollars per units

Source	Measure	2020	2021	2022
India	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	***	***	***
India	Value	***	***	***
Nonsubject sources	Value	***	***	***
All import sources	Value	***	***	***
India	Unit value	***	***	***
Nonsubject sources	Unit value	***	***	***
All import sources	Unit value	***	***	***
India	Share of quantity	***	***	***
Nonsubject sources	Share of quantity	***	***	***
All import sources	Share of quantity	***	***	***
India	Share of value	***	***	***
Nonsubject sources	Share of value	***	***	***
All import sources	Share of value	***	***	***
India	Ratio	***	***	***
Nonsubject sources	Ratio	***	***	***
All import sources	Ratio	***	***	***

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

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratio are U.S. imports to Worthington's production.

[7] Beyond the increase in imports from China, there was also a 2021-22 rise in ***. As China is the subject of antidumping and countervailing duty orders resulting from the Commission's affirmative determination in the prior investigation of NRSCs from China, staff believes that the rise in imports from China is at least partly explained by shipments of NRSCs which have been designed to circumvent the existing orders, namely NRSCs which have a water capacity below the threshold of the existing orders. 88 FR 35839, June 1, 2023.

Table IV-3
NRSC: Changes in import quantity, value, and unit value between comparison periods

Changes in percent

Source	Measure	2020-2022	2020-2021	2021-2022
India	%Δ Quantity	▲***	▲***	▲***
Nonsubject sources	%Δ Quantity	▼***	▼***	▲***
All import sources	%Δ Quantity	▲***	▲***	▲***
India	%Δ Value	▲***	▲***	▲***
Nonsubject sources	%Δ Value	▼***	▼***	▲***
All import sources	%Δ Value	▲***	▲***	▲***
India	%Δ Unit value	▲***	▲***	▲***
Nonsubject sources	%Δ Unit value	▲***	▲***	▼***
All import sources	%Δ Unit value	▲***	▲***	▲***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure IV-1
NRSC: U.S. import quantities and average unit values, by source and period

* * * * *

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

Controlled imports

Table IV-4 presents data on the subject, nonsubject, and total imports reported by the U.S. producer by quantity and as a ratio to total imports from each source as reported in responses to the Commission's questionnaires. As noted earlier in table III-12 of this report, the entirety of Worthington's ***.[8] As such, subject imports never exceeded *** percent as a ratio to total imports of NSRCs from all importers during the period reported. Nonsubject imports consisted entirely of ***.[9]

[8] U.S. producer questionnaire response, section II-5a.

[9] U.S. producer questionnaire response, sections I-7 and II-6a.

Table IV-4
NRSC: U.S. imports by U.S. producer Worthington

Quantity in units; ratio in percent

Source	Measure	2020	2021	2022
India	Quantity	***	***	***
Nonsubject sources ***	Quantity	***	***	***
All import sources	Quantity	***	***	***
India	Ratio	***	***	***
Nonsubject sources ***	Ratio	***	***	***
All import sources	Ratio	***	***	***

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

Note: Ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". The ratios represent the portion of U.S. imports as reported in responses to the Commission's questionnaires within the specified source that was imported by U.S. producers and/or their affiliates. These ratios are calculated off of data shown in this table (numerators) and in table IV-2 (denominators).

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[10] Negligible imports are generally defined in the Act, 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.[11] Imports from India accounted for *** percent of total imports of NRSCs by quantity from April 1, 2022 to March 31, 2023.

[10] 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)).

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

Table IV-5
NRSC: U.S. imports in the twelve-month period preceding the filing of the petition, April 1, 2022 to March 31, 2023

Quantity in units; Share in percent

Source of imports	Quantity	Share of quantity
India	***	***
Nonsubject sources	***	***
All import sources	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Apparent U.S. market consumption and market shares

Quantity

Table IV-6 presents data on apparent U.S. total market consumption and U.S. market shares by quantity for NRSCs. From 2020-21, U.S. shipments of NRSCs by Worthington, by quantity, increased by *** percent and shipments of imports from India increased by ***. Nonsubject imports decreased by *** percent over the same period.[12] Thus, as nonsubject imports' market share fell by *** percentage points from 2020-21, the share accounted for by Worthington and Indian imports increased by *** and *** percentage points, respectively. Indian imports continued to increase both in terms of quantity and as a share of the total market from 2021-22, for a net increase of *** by quantity and *** percentage points of market share over the period reported. Meanwhile, Worthington's U.S. shipments fell *** percent from 2021-22, resulting in a net decline across the period reported of *** percent, and a *** percentage point net decline in market share. Although nonsubject imports did rise from 2021-22, the rise was not enough to offset the decline from 2020-21, resulting in a net decline of *** percent by quantity and *** percentage points of market share across the period reported.[13] Thus, the *** percent increase in quantity

[12] Nonsubject imports in this case include those from China, which was the subject of the prior investigation covering imports of NRSCs during the period referenced above. Non-Refillable Steel Cylinders from China, Inv. Nos. 701-TA-644 and 731-TA-1494 (Final), USITC Publication 5188, May 2021.

[13] Although both nonsubject and subject imports rose from 2021-22, Appendix D uses monthly imports data compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 7311.00.0060 and 7311.00.0090 to illustrate how imports from China overtook imports from India in H2 2022. Subject imports entered in greater quantities than imports from China for all six months of H1 2022. Thereafter, imports from China outpaced subject

(*continued*...)

and *** percentage point increase in market share for total imports from 2020-22 was driven entirely by the growth in subject imports.

Table IV-6
NRSC: Apparent U.S. total market consumption and market shares based on quantity, by source and period

Quantity in units; shares in percent

Source	Measure	2020	2021	2022
U.S. producer	Quantity	***	***	***
India	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	***	***	***
All sources	Quantity	***	***	***
U.S. producer	Share	***	***	***
India	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	***	***	***

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

(…*continued*)
imports in five of the six months in H2 2022. As mentioned in the discussion of table IV-2 in this report, staff believes that the rise in Chinese imports is due at least in part to possible circumvention of existing orders by Chinese producers. As of May 26, 2023, Commerce has initiated an anti-circumvention inquiry into NRSCs from China. 88 FR 35839, June 1, 2023. See Appendix D for more detail.

Figure IV-2
NRSC: Apparent U.S. total market consumption based on quantity, by source and period

* * * * *

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

Table IV-7 presents data on merchant market apparent U.S. consumption and U.S. market shares by quantity for NRSCs. Apparent consumption for the merchant market fluctuated between 2020 and 2022, first increasing *** percent from 2020-21 before then declining *** percent from 2021-22, for an irregular increase of *** percent over the period reported. The 2020-21 increase was accounted for entirely by increases in Worthington's shipments as well as shipments of subject imports, as nonsubject imports declined *** percent over this period. The simultaneous decline of nonsubject imports and rise in subject imports from 2020-21 resulted in subject imports gaining *** percentage points of market share while nonsubject imports lost *** percentage points from 2020-21. From 2021-22, total imports increased by *** percent, due to growth in both subject and nonsubject imports. As imports from all sources grew, Worthington reported a *** percent decline in shipments in the merchant market and an *** percentage point loss in market share from 2021-22, and a net loss of *** percentage points of market share over the period reported.

Table IV-7
NRSC: Apparent U.S. merchant market consumption and market shares based on quantity, by source and period

Quantity in units; Shares in percent

Source	Measure	2020	2021	2022
U.S. producer	Quantity	***	***	***
India	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	***	***	***
All sources	Quantity	***	***	***
U.S. producer	Share	***	***	***
India	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	***	***	***

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

Figure IV-3
NRSC: Apparent U.S. merchant market consumption based on quantity, by source and period

* * * * *

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

Value

Table IV-8 presents data on total market apparent U.S. consumption and U.S. market shares by value for NRSCs. The total U.S. market for NRSCs, by value, increased *** percent from 2020-22, driven by increases of *** percent in imports and *** percent in U.S. shipments by Worthington. In the case of imports, the net increase from 2020-22 was driven entirely by growth in imports from India, with the bulk of this growth coming from the over *** growth from 2020-21. Imports from nonsubject sources were the only source which saw a decline in any period, with the 2020-21 decrease of *** percent. The subsequent rebound in the value of nonsubject imports from 2021-22 of *** percent nonetheless resulted in a net decline of *** percent from 2020-22.

The steady growth in the value of Worthington's U.S. shipments did not outpace the growth in the value of imports, resulting in consecutive declines of *** and *** percentage points in Worthington's market share from 2020-22. The *** percentage point growth in market share for all import sources from 2020-22 was driven solely by increased market share from Indian imports, whose market share grew *** percentage points over the period. While nonsubject imports did experience a *** percentage point rise in market share in 2022 compared to 2021, it was not enough to offset the *** percentage point decline from 2020-21, leading to a *** percentage point irregular decline over the period reported.

Table IV-8
NRSC: Apparent U.S. total market consumption and market shares based on value, by source and period

Value in 1,000 dollars; Shares in percent

Source	Measure	2020	2021	2022
U.S. producer	Value	***	***	***
India	Value	***	***	***
Nonsubject sources	Value	***	***	***
All import sources	Value	***	***	***
All sources	Value	***	***	***
U.S. producer	Share	***	***	***
India	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	***	***	***

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

Figure IV-4
NRSC: Apparent U.S. total market consumption based on value, by source and period

* * * * *

Source: Compiled from data submitted in response to Commission questionnaires

Table IV-9 presents data on merchant market apparent U.S. consumption and U.S. market shares by value for NRSCs. The merchant market for NRSCs, by value, grew steadily from 2020-22 with a *** percent increase driven by consecutive growth in the value of U.S. shipments by Worthington and total imports. The 2020-22 increase in total imports was due entirely to the 2020-22 increase in imports from India, *** percent of which took place from 2020-21, when imports from India grew over ***. During that 2020-21 period, the share of Indian imports in the merchant market rose *** percentage points, before falling off slightly by *** percentage points in 2022. Despite a *** percentage point increase in market share from 2021-22, nonsubject imports lost *** percentage points of merchant market share over the period reported. However, the magnitude of the increase in the value of subject imports offset the decline in nonsubject imports, leading to a *** percentage point gain in market share for total imports, at the expense of the domestic producer.

Table IV-9
NRSC: Apparent U.S. merchant market consumption and market shares based on value, by source and period

Value in 1,000 dollars; shares in percent

Source	Measure	2020	2021	2022
U.S. producer	Value	***	***	***
India	Value	***	***	***
Nonsubject sources	Value	***	***	***
All import sources	Value	***	***	***
All sources	Value	***	***	***
U.S. producer	Share	***	***	***
India	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	***	***	***
All sources	Share	***	***	***

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

Figure IV-5
NRSC: Apparent U.S. merchant market consumption based on value, by source and period

* * * * *

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

Part V: Pricing data

Factors affecting prices

Raw material costs

NRSCs are typically made from cold-rolled steel.[1] Raw materials as a share of total costs of goods sold increased from *** percent in 2020 to *** percent in December 2022. As shown in figure V-1, ***.

Figure V-1
NRSC: Raw material prices, monthly, January 2020 to March 2023

* * * * * * *

Source: ***, accessed May 2023.

[1] Petition, p. 6.

Table V-1
NRSC: Raw material prices, monthly, January 2020 to March 2023

Prices in dollars per cwt (100 pounds)

Month	2020	2021	2022
January	***	***	***
February	***	***	***
March	***	***	***
April	***	***	***
May	***	***	***
June	***	***	***
July	***	***	***
August	***	***	***
September	***	***	***
October	***	***	***
November	***	***	***
December	***	***	***

Source: ***, accessed May 2023.

Transportation costs to the U.S. market

Transportation costs for NRSCs shipped from India to the United States averaged 9.8 percent during 2022. These estimates were derived from official import data and represent the transportation and other charges on imports.[2]

U.S. inland transportation costs

U.S. producer Worthington reported that *** usually arranges transportation. Worthington reported that its U.S. inland transportation costs average *** percent. The majority of responding importers reported that they typically arrange transportation to their customers. Importers reported that their U.S. inland transportation costs ranged from 3.2 to 7.8 percent.

[2] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2022 and then dividing by the customs value based on the HTS statistical reporting number 7311.00.0060 and 7311.00.0090.

Pricing practices

Pricing methods

U.S. producer Worthington reported setting pricing ***. Importers reported setting pricing on a transaction-by-transaction basis, using contracts, and other methods (table V-2). Importer *** reported that other methods of setting prices included adding a transfer fee to the import costs when selling to an affiliated firm.

Table V-2
NRSC: Count of U.S. producer's and importers' reported price setting methods

Count in number of firms reporting

Method	U.S. producer	Importers
Transaction-by-transaction	***	3
Contract	***	1
Set price list	***	0
Other	***	1
Responding firms	1	5

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

Note: 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.

U.S. producer Worthington reported selling most of their NRSCs ***. Importers reported selling the vast majority of their NRSCs *** (table V-3). Importers *** reported that they sold exclusively in the spot market, while importers *** reported selling under short-term contracts.

Table V-3
NRSC: U.S. producer's and importers' shares of commercial U.S. shipments by type of sale, 2022

Share in percent

Type of sale	U.S. producer	Subject importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	100.0	100.0

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

Note: Because of rounding, figures may not add to the totals shown.

U.S. producer Worthington reported that it ***. U.S. producer Worthington reported that ***. U.S. producer Worthington reported that it ***. U.S. producer Worthington reported that long-term contracts typically last three years. Responding importers did not report the length or terms of short-term contracts.

Sales terms and discounts

U.S. producer Worthington typically quotes prices on a ***; while importers typically quote prices on a delivered basis. Producer Worthington reported offering ***. The majority of responding importers reported having no discount policy.

Price and purchase cost 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 NRSC products shipped to unrelated U.S. customers during January 2020-December 2022. The Commission also requested import purchase cost data from importers that imported NRSCs for internal consumption.

Product 1.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Product 2.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Price data

U.S. producer Worthington and two importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[3] Pricing data reported by these firms accounted for approximately *** percent of the U.S. producer's U.S. shipments of NRSCs and *** percent of U.S. shipments of imports from India in 2022.

Price data for products 1-2 are presented in tables V-4 to V-5 and figures V-2 to V-3.

Table V-4
NRSC: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	India price	India quantity	India margin
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***
2021 Q3	***	***	***	***	***
2021 Q4	***	***	***	***	***
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***

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

Note: Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

[3] 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
NRSC: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by source and quarter

Price of product 1

* * * * * * *

Volume of product 1

* * * * * * *

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

Note: Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Table V-5
NRSC: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and quarter

Price in dollars per unit, quantity in units, margin in percent.

Period	US price	US quantity	India price	India quantity	India margin
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***
2021 Q3	***	***	***	***	***
2021 Q4	***	***	***	***	***
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***

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

Note: Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Figure V-3
NRSC: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by source and quarter

Price of product 2

* * * * * * *

Volume of product 2

* * * * * * *

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

Note: Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Import purchase cost data

Ten importers reported useable import purchase cost data for products 1-2. Purchase cost data reported by these firms accounted for *** percent of U.S. shipments from India in 2022. *** and *** were the largest importers for internal consumption. Landed duty-paid purchase cost data for imports from India are presented in tables V-6 to V-7 and figures V-4 and V-5, along with U.S. producer Worthington's sales prices.[4]

Importers reporting import purchase cost data were asked to provide additional information regarding the costs and benefits of directly importing NRSCs.

Five of nine importers reported that they incurred additional costs beyond landed duty-paid costs by importing NRSCs themselves rather than purchasing from a U.S. producer or U.S. importer. Of these, five importers estimated the total additional cost incurred; estimates ranged from 1 to 35 percent compared to the landed duty-paid value. Firms were also asked to identify specific additional costs they incurred as a result of importing NRSCs. Reported costs include quality management, financing, shipping, and storage costs. Importer *** reported that inland freight costs, chassis rentals, and demurrage fees incurred between 14 and 21 percent additional costs as a result of importing NRSCs, while financing costs were between 1-3 percent. Importer *** reported that warehouse costs incurred 6 percent of additional costs.

Firms were also asked to describe how these additional costs incurred by importing NRSCs themselves compare with additional costs incurred when purchasing from a U.S. producer or U.S. importer. Importer *** reported that after costs incurred from supply chain management and inbound inspection, the per unit costs of imported NRSCs was comparable to the cost of NRSCs it purchased from the sole U.S. producer. Importer *** reported that they were unable to source NRSCs from Worthington as the lead times were one year in 2021, and foreign sources were the only option for supply chain continuity.

Ten of 14 importers reported that they compare costs of importing to the cost of purchasing from a U.S. producer in determining whether to import NRSCs. Three importers compare costs to purchasing from a U.S. importer, and one importer does not compare costs of purchasing from either the U.S. producer or importers.

[4] LDP import value does not include any potential additional costs that a purchaser may incur by importing rather than purchasing from another importer or U.S. producer. Price-cost differences are based on LDP import values whereas margins of underselling/overselling are based on importer sales prices.

Ten importers identified benefits from importing NRSCs themselves instead of purchasing from U.S. producers or importers. Importers *** and *** reported that the supply from importers and U.S. producers was low and the prices were too high. Importer *** reported that there were lower costs and lead time when importing NRSCs themselves. Importer *** reported that it created a diversified supply chain. Importers *** and *** reported that availability of NRSCs was one of the benefits of importing NRSCs themselves.

Firms were also asked whether the import cost (both excluding and including additional costs) of NRSCs they imported are lower than the price of purchasing NRSCs from a U.S. producer or importer. Seven importers reported that the cost of NRSCs were lower than the price of purchasing NRSCs from a U.S. producer or importer including the additional costs of importing NRSCs.

Two importers estimated that they saved between *** percent of the purchase price by importing NRSCs rather than purchasing from a U.S. importer. Eight importers estimated saving between *** percent compared to purchasing the product from a U.S. producer.[5]

[5] Five firms reported that they based their estimates on previous company transactions, five reported basing their estimates on market research, and two reported other bases for their estimates, including the difference between the price offered by U.S. producer Worthington and Indian suppliers in 2022.

Table V-6
NRSC: Import landed duty-paid purchase costs and domestic prices, quantities of product 1, and price-cost differentials, by source and quarter

Price and unit LDP values in dollars per unit, quantity in units, differentials in percent.

Period	US price	US quantity	India unit LDP value	India cost quantity	India differential
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***
2021 Q3	***	***	***	***	***
2021 Q4	***	***	***	***	***
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***

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

Note: Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Figure V-4
NRSC: U.S. producer prices and import purchase costs, and quantities, of product 1, by source and by quarter

U.S. price and import purchase cost of product 1

* * * * * * *

Volume of product 1

* * * * * * *

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

Note: Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Table V-7
NRSC: Import landed duty-paid purchase costs and domestic prices, quantities of product 2, and price-cost differentials, by source and quarter

Price and unit LDP values in dollars per unit, quantity in units, differential in percent.

Period	US price	US quantity	India unit LDP value	India cost quantity	India differential
2020 Q1	***	***	***	***	***
2020 Q2	***	***	***	***	***
2020 Q3	***	***	***	***	***
2020 Q4	***	***	***	***	***
2021 Q1	***	***	***	***	***
2021 Q2	***	***	***	***	***
2021 Q3	***	***	***	***	***
2021 Q4	***	***	***	***	***
2022 Q1	***	***	***	***	***
2022 Q2	***	***	***	***	***
2022 Q3	***	***	***	***	***
2022 Q4	***	***	***	***	***

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

Note: Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Figure V-5
NRSC: U.S. producer prices and import purchase costs, and quantities, of product 2, by quarter

U.S. price and import purchase cost of product 2

* * * * * * *

Volume of product 2

* * * * * * *

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

Note: Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Price and purchase cost trends

In general, prices increased from January 2020 to December 2022. Table V-8 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent from January 2020 to December 2022. The U.S. price trend is illustrated in figure V-6. There was insufficient pricing or purchase cost data to establish trends for imports of NRSCs.

Table V-8
NRSC: Summary of data, by product price and purchase cost and source, January 2020 through December 2022

Quantity in units, price in dollars per unit; change in percent

Product	Source	Number of quarters	Quantity of shipments	Low price	High price	First quarter price	Last quarter price	Percent change in price over period
Product 1	United States	***	***	***	***	***	***	***
Product 1	India price	***	***	***	***	***	***	***
Product 2	India cost	***	***	***	***	***	***	***
Product 2	United States	***	***	***	***	***	***	***
Product 2	India price	***	***	***	***	***	***	***
Product 3	India cost	***	***	***	***	***	***	***

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

Note: Percent change column is percentage change from the first quarter 2020 to the last quarter in 2022.

Figure V-6
NRSC: Indexed U.S. producer prices, by quarter

* * * * * * *

Table V-9
NRSC: Indexed subject U.S. producer prices, by quarter

Indexed prices in percent

Period	Product 1	Product 2
2020 Q1	***	***
2020 Q2	***	***
2020 Q3	***	***
2020 Q4	***	***
2021 Q1	***	***
2021 Q2	***	***
2021 Q3	***	***
2021 Q4	***	***
2022 Q1	***	***
2022 Q2	***	***
2022 Q3	***	***
2022 Q4	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“.

Price and purchase cost comparisons

Price comparisons

As shown in table V-10, prices for product imported from India were below those for U.S.-produced product in 5 of 8 instances (*** units); margins of underselling ranged from *** percent. In the remaining 3 instances (*** units), prices for product from India were between *** percent above prices for the domestic product.

Table V-10
NRSC: Instances of underselling and overselling and the range and average of margins, by product

Quantity in units; margin in percent

Product	Type	Number of quarters	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	***	***	***	***	***
Product 2	Underselling	***	***	***	***	***
Total	Underselling	5	***	***	***	***
Product 1	Overselling	***	***	***	***	***
Product 2	Overselling	***	***	***	***	***
Total	Overselling	3	***	***	***	***

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

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Price-cost comparisons

As shown in table V-11, landed duty-paid costs for NRSCs imported from India were below the sale price for U.S.-produced product in 13 of 17 instances (*** units); price-cost differentials ranged from *** percent. In the remaining 4 instances (*** units), landed duty-paid costs for NRSCs from India were between *** percent above sales prices for the domestic product.

Table V-11
NRSC: Instances of lower and higher import purchase costs and the range and average of price-cost differentials, by product

Quantity in units; price-cost differential in percent

Product	Type	Number of quarters	Quantity	Average price-cost differential	Min price-cost differential	Max price-cost differential
Product 1	Lower than U.S. price	***	***	***	***	***
Product 2	Lower than U.S. price	***	***	***	***	***
Total	Lower than U.S. price	13	***	***	***	***
Product 1	Higher than U.S. price	***	***	***	***	***
Product 2	Higher than U.S. price	***	***	***	***	***
Total	Higher than U.S. price	4	***	***	***	***

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

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Lost sales and lost revenue

The Commission requested that the U.S. producer of NRSCs report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of NRSCs from India during January 2020-December 2022. The U.S. producer identified 12 firms with which they lost sales and revenue.

Staff contacted 12 purchasers and received responses from seven purchasers. Responding purchasers reported purchasing *** NRSCs during January 2020-December 2022 (table V-12).

During 2022, responding purchasers purchased 74.7 percent from U.S. producers, 23.3 percent from India, and 2.0 percent from nonsubject countries. Purchasers were asked about changes in their purchasing patterns from different sources since 2020. Of the responding purchasers, two reported steadily increasing purchases from domestic producers, two reported no change, and two reported purchases that fluctuated and ended higher than they began.[6] Purchaser *** reported that it increased purchases from U.S. producers after duties were imposed on NRSCs from China. Purchasers *** and *** reported that market conditions caused them to increase purchases from foreign producers but they have shifted purchases back to domestic producers as this unique market condition has passed.

Of the seven responding purchasers, five reported that, since January 1, 2020, they had purchased imported NRSCs from India instead of U.S.-produced product. Five of these purchasers reported that subject import prices were lower than U.S.-produced product, and none of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. None of the responding purchasers estimated the quantity of NRSCs from India purchased instead of domestic product; these firms reported that they imported NRSCs from India due to supply constraints and supply chain issues (table V-13).

Of the seven responding purchasers, two reported that U.S. producers had reduced prices in order to compete with lower-priced imports from India; one reported that they did not know (table V-14). The reported estimated price reduction was *** percent.

[6] Of the seven responding purchasers, two purchasers indicated that they did not know the source of the NRSCs they purchased.

Table V-12
NRSC: Purchasers' reported purchases and imports, by firm and source

Quantity in units, share in percent

Purchaser	Domestic quantity	Subject quantity	All other quantity	Change in domestic share	Change in subject country share
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	***	***	***	***	***

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

Note: All other includes all other sources and unknown sources. Change is the percentage point change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

Table V-13
NRSC: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in units

Firm	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Narrative on reasons for purchasing imports
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued.

Table V-13--Continued

Firm	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Narrative on reasons for purchasing imports
***	***	***	***	***	***
All firms	Yes--5; No--2	Yes--5; No--0	Yes--0; No--5	***	NA

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

Table V-14
NRSC: Purchasers' responses to U.S. producer price reductions, by firm

Count in number of firms reporting; Price reductions in percent

Purchaser	Reported producers lowered prices	Estimated percent of U.S. price reduction	Explanation
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All firms	Yes--2; No--2	***	NA

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

Part VI: Financial experience of the U.S. producer

Background[1]

Worthington, the only U.S. producer of NRSCs during the period of investigation, is a publicly traded company with four reportable business segments (Steel Processing, Consumer Products, Building Products, and Sustainable Energy Solutions). ***.[2] The NRSC financial results and related information reported to the Commission are based on information from an accounting system designed to generate/report overall financial results on a U.S. GAAP basis.[3]

As described in Part III of this report and with regard to changes in NRSC operations, Worthington added a manufacturing line at its Columbus, Ohio facility; construction beginning in early 2021 and the new line in commercial production by March 2022.[4] In response to declining NRSC sales, Worthington *** during the second half of 2022 and early 2023.[5]

[1] The following abbreviations may be used in the tables and/or text of this section: generally accepted accounting principles ("GAAP"), fiscal year ("FY"), net sales ("NS"), cost of goods sold ("COGS"), selling, general, and administrative expenses ("SG&A expenses"), average unit values ("AUVs"), research and development expenses ("R&D expenses"), and return on assets ("ROA").

[2] Worthington 2022 10-K, pp. 1-2. Petitioner's postconference brief, Exhibit 15, p. 1. ***.

[3] Worthington U.S. producer questionnaire, section III-2. While Worthington's consolidated financial results are based on fiscal years ending May 31, the NRSC financial results reported to the Commission reflect calendar-year periods.

[4] Conference transcript, pp. 20-21 (Bowes). ***. Petitioner's postconference brief, Exhibit 15, p. 3. An important distinguishing aspect of the new NRSC line, reflecting a $21 million investment, was a higher level of automation as compared to the company's existing NRSC lines. Conference transcript, pp. 75-76.

[5] Worthington U.S. producer questionnaire, section II-2a. With regard to the reduction in NRSC operations, Worthington stated that the new NRSC line at the Columbus, Ohio facility is "… down to *** shifts and the company is currently running at reduced rates across its operations." Petitioner's postconference brief, p. 40.

Operations on Non-refillable steel cylinders

Table VI-1 and table VI-2 present income-and-loss data for the U.S. producer's NRSC total market operations and corresponding changes in AUVs, respectively. Table VI-3 presents a variance analysis of total market financial results. Table VI-4 and table VI-5 present income-and-loss data for the U.S. producer's NRSC open market operations and corresponding changes in AUVs, respectively. Table VI-6 presents a variance analysis of open market financial results.

Table VI-1
NRSC (Total market operations): U.S. producer's results of operations, by item and period

Quantity in units; value in 1,000 dollars; ratios in percent

Item	Measure	2020	2021	2022
Commercial sales	Quantity	***	***	***
Internal consumption	Quantity	***	***	***
Total net sales	Quantity	***	***	***
Commercial sales	Value	***	***	***
Internal consumption	Value	***	***	***
Total net sales	Value	***	***	***
Total raw materials	Value	***	***	***
Direct labor	Value	***	***	***
Other factory costs	Value	***	***	***
Cost of goods sold	Value	***	***	***
Gross profit or (loss)	Value	***	***	***
SG&A expenses	Value	***	***	***
Operating income or (loss)	Value	***	***	***
Interest expense	Value	***	***	***
All other expenses	Value	***	***	***
All other income	Value	***	***	***
Net income or (loss)	Value	***	***	***
Depreciation expense included above	Value	***	***	***
Estimated cash flow from operations	Value	***	***	***
Total raw materials	Ratio to NS	***	***	***
Direct labor	Ratio to NS	***	***	***
Other factory costs	Ratio to NS	***	***	***
Cost of goods sold	Ratio to NS	***	***	***
Gross profit or (loss)	Ratio to NS	***	***	***
SG&A expenses	Ratio to NS	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***
Net income or (loss)	Ratio to NS	***	***	***

Table continued.

Table VI-1 Continued
NRSC (Total market operations): U.S. producer's results of operations, by item and period

Shares in percent; average values in dollars per unit; count in number of firms reporting

Item	Measure	2020	2021	2022
Total raw materials	Share	***	***	***
Direct labor	Share	***	***	***
Other factory costs	Share	***	***	***
Cost of goods sold	Share	***	***	***
Commercial sales	Unit value	***	***	***
Internal consumption	Unit value	***	***	***
Total net sales	Unit value	***	***	***
Total raw materials	Unit value	***	***	***
Direct labor	Unit value	***	***	***
Other factory costs	Unit value	***	***	***
Cost of goods sold	Unit value	***	***	***
Gross profit or (loss)	Unit value	***	***	***
SG&A expenses	Unit value	***	***	***
Operating income or (loss)	Unit value	***	***	***
Net income or (loss)	Unit value	***	***	***
Operating losses	Count	***	***	***
Net losses	Count	***	***	***
Data	Count	1	1	1

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

Note: Shares represent the share of COGS.

Table VI-2
NRSC (Total market operations): Changes in AUVs between comparison periods

Changes in percent

Item	2020-22	2020-21	2021-22
Commercial sales	***	***	***
Internal consumption	***	***	***
Total net sales	***	***	***
Total raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Cost of goods sold	***	***	***

Table continued.

Table VI-2 Continued
NRSC (Total market operations): Changes in AUVs between comparison periods

Changes in dollars per unit

Item	2020-22	2020-21	2021-22
Commercial sales	***	***	***
Internal consumption	***	***	***
Total net sales	***	***	***
Total raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Cost of goods sold	***	***	***
Gross profit or (loss)	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

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

Note: Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

Table VI-3
NRSC (Total market operations): Variance analysis on the operations of the U.S. producer between comparison periods

Value in 1,000 dollars

Item	2020-22	2020-21	2021-22
Net sales price variance	***	***	***
Net sales volume variance	***	***	***
Total net sales variance	***	***	***
COGS cost variance	***	***	***
COGS volume variance	***	***	***
COGS total variance	***	***	***
Gross profit variance	***	***	***
SG&A cost variance	***	***	***
SG&A volume variance	***	***	***
SG&A total variance	***	***	***
Operating income -- price variance	***	***	***
Operating income -- expense/cost variance	***	***	***
Operating income -- net volume variance	***	***	***
Operating income total variance	***	***	***

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

Note: These data are derived from the data in table VI-1. Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

Table VI-4
NRSC (Open market operations): U.S. producer's results of operations, by item and period

Quantity in units; value in 1,000 dollars; shares in percent; average values in dollars per unit; count in number of firms reporting

Item	Measure	2020	2021	2022
Commercial sales	Quantity	***	***	***
Commercial sales	Value	***	***	***
Total raw materials	Value	***	***	***
Direct labor	Value	***	***	***
Other factory costs	Value	***	***	***
Cost of goods sold	Value	***	***	***
Gross profit or (loss)	Value	***	***	***
SG&A expenses	Value	***	***	***
Operating income or (loss)	Value	***	***	***
Interest expense	Value	***	***	***
All other expenses	Value	***	***	***
All other income	Value	***	***	***
Net income or (loss)	Value	***	***	***
Depreciation expense included above	Value	***	***	***
Estimated cash flow from operations	Value	***	***	***
Total raw materials	Ratio to NS	***	***	***
Direct labor	Ratio to NS	***	***	***
Other factory costs	Ratio to NS	***	***	***
Cost of goods sold	Ratio to NS	***	***	***
Gross profit or (loss)	Ratio to NS	***	***	***
SG&A expenses	Ratio to NS	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***
Net income or (loss)	Ratio to NS	***	***	***
Total raw materials	Share	***	***	***
Direct labor	Share	***	***	***
Other factory costs	Share	***	***	***
Cost of goods sold	Share	***	***	***
Commercial sales	Unit value	***	***	***
Total raw materials	Unit value	***	***	***
Direct labor	Unit value	***	***	***
Other factory costs	Unit value	***	***	***
Cost of goods sold	Unit value	***	***	***
Gross profit or (loss)	Unit value	***	***	***
SG&A expenses	Unit value	***	***	***
Operating income or (loss)	Unit value	***	***	***
Net income or (loss)	Unit value	***	***	***
Operating losses	Count	***	***	***
Net losses	Count	***	***	***
Data	Count	1	1	1

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

Note: Shares represent the share of COGS.

Table VI-5
NRSC (Open market operations): Changes in AUVs between comparison periods

Changes in percent

Item	2020-22	2020-21	2021-22
Commercial sales	***	***	***
Total raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Cost of goods sold	***	***	***

Table continued.

Table VI-5 Continued
NRSC (Open market operations): Changes in AUVs between comparison periods

Changes in dollars per unit

Item	2020-22	2020-21	2021-22
Commercial sales	***	***	***
Total raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Cost of goods sold	***	***	***
Gross profit or (loss)	***	***	***
SG&A expenses	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

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

Note: Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

Table VI-6
NRSC (Open market operations): Variance analysis on the operations of the U.S. producer between comparison periods

Value in 1,000 dollars

Item	2020-22	2020-21	2021-22
Net sales price variance	***	***	***
Net sales volume variance	***	***	***
Net sales total variance	***	***	***
COGS cost variance	***	***	***
COGS volume variance	***	***	***
COGS total variance	***	***	***
Gross profit variance	***	***	***
SG&A cost variance	***	***	***
SG&A volume variance	***	***	***
SG&A total variance	***	***	***
Operating income -- price variance	***	***	***
Operating income -- expense/cost variance	***	***	***
Operating income -- net volume variance	***	***	***
Operating income total variance	***	***	***

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

Note: These data are derived from the data in table VI-4. Unfavorable variances (which are negative) are shown in parentheses, all others are favorable (positive).

Net sales

For the period as a whole NRSC commercial sales accounted for the majority of Worthington's total sales quantity (*** percent) with internal consumption accounting for the remainder (*** percent).[6] *** transfer sales to related firms were reported. While fluctuating somewhat, the annual share of commercial sales and internal consumption to total sales quantity remained within a relatively narrow range throughout the period.[7]

[6] ***. Petitioner's postconference brief, Exhibit 15, p. 3.

[7] As noted in Part III of this report, Worthington reported that COVID-19 and related mitigation efforts ***. Worthington U.S. producer questionnaire, section II-2b.

Quantity

On an overall basis total sales quantity increased *** in 2021, a year reportedly characterized by "extraordinary demand,"[8] and then declined *** in 2022. While the sales quantities of commercial sales and internal consumption were directionally the same, both increasing in 2021 *** of the period and then declining in 2022 ***, percentage changes (positive and negative) in commercial sales quantity were more pronounced.

Value

The majority of NRSC commercial sales are made pursuant to contracts, which reflect different pricing mechanisms (locked prices or indexed pricing to incorporate changes in primary raw material costs).[9] The remainder of NRSC commercial sales are generally understood to be spot sales.

The value of commercial sales and internal consumption increased by varying magnitudes in 2021 and 2022; the average unit internal consumption value was lower than the corresponding average unit commercial sales value throughout the period.[10] As shown in the sales sections of the total market and open market variance analysis tables (table VI-3 and table VI-6), the increase in total sales value between 2020 and 2021 reflects positive volume and price variances, while the increase in total sales value between 2021 and 2022 reflects a positive price variance partially offset by a negative volume variance.[11] With regard to the price

[8] Conference transcript, p. 61 (Powers). Peak NRSC demand reportedly occurred in late 2021 and early 2022. Petitioner's postconference brief, p. 12.

[9] Conference transcript, p. 63 (Bowes). ***. Petitioner's postconference brief, Exhibit 1, pp. 5-6.

[10] ***. Petitioner's postconference brief, Exhibit 15, p. 2.

[11] The Commission's variance analysis is calculated in three parts: sales variance, COGS variance, and SG&A expenses variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expenses variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense

(*continued*...)

variances, average unit commercial sales value and internal consumption values both increased in 2020-21 and 2021-22 with the percentage increases more notable between 2021 and 2022 (see table VI-2). The source of these price variances was a combination of changes in underlying sales values and product mix.[12]

Cost of goods sold and gross profit or loss

Raw materials

Raw material costs are the largest component of NRSC COGS (ranging from *** percent of COGS (2020) to *** percent (2022) (total market operations) and *** percent (2020) to *** percent (2021 and 2022) (open market operations)).[13] [14] A relatively *** share of Worthington's COGS includes inputs sourced from related suppliers.[15]

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times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. As summarized at the bottom of the variance analysis, the price variance is from sales, the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expenses variances. The Commission's variance analysis is more meaningful when product mix remains the same throughout the period. While Worthington indicated that there were some changes in product mix during the period (see footnote 12), the changes do not appear substantial enough to undermine the utility of the variance analysis, which is therefore presented in table VI-3 (total market operations) and table VI-6 (open market operations).

[12] ***. Petitioner's postconference brief, Exhibit 15, pp. 1-2.

[13] Cold-rolled steel is the single largest cost component of NRSCs. Conference transcript, p. 66 (Bowes), p. 74 (Powers). ***. Worthington U.S. producer questionnaire, section III-9d.

[14] In general, total market operations' *** raw material cost share can be attributed to the *** amount of conversion costs (direct labor plus other factory costs) assigned to internal consumption as compared to commercial sales. USITC auditor preliminary-phase notes.

[15] ***

(*continued*...)

In addition to contracted sales values indexed to steel costs ***, as noted above, Worthington uses financial hedges for steel purchases, which the company indicated allows it to protect gross margin (from the impact of steel price volatility) while offering fixed prices to its customers.[16] The company noted, however, that indexing sales prices and financial hedging only mitigates the risk of short-term steel cost fluctuations; i.e., these strategies, according to Worthington, cannot shield it from the effect of long-term increases in steel costs.[17]

For total market operations and open market operations, average unit raw material costs increased somewhat in 2021 and then more notably in 2022 (see table VI-2 and table VI-5). Worthington attributed this pattern to increases ***.[18] While differences were minimal throughout the period, the average unit raw material cost for open market operations, as compared to total market operations, was *** in 2020 and 2021 and *** in 2022.

Direct labor cost and other factory costs

For total market operations and open market operations, direct labor cost is the smallest component of COGS (ranging from *** percent of COGS (2021) to *** percent (2020) (total market operations) and *** percent (2021) to *** percent (2020) (open market operations)). Other factory costs, consistent with a capital intensive manufacturing process,[19] are the second largest component of COGS (ranging from *** percent of COGS

***. Worthington U.S. producer questionnaire, sections III-6 and III-7a. ***. Petitioner's postconference brief, Exhibit 15, p. 1. ***. Ibid.

[16] Petitioner's postconference brief, Exhibit 1, p. 7. ***. Ibid.

[17] Petitioner's postconference brief, Exhibit 1, p. 6.

[18] ***. Petitioner's postconference brief, Exhibit 15, p. 2.

[19] Noting that the new NRSC line at the Columbus, Ohio facility represented a $21 million investment, a Worthington company official stated "… all cylinders that we manufacture are capital intensive." Conference transcript, p. 78 (Bowes).

(2022) to *** percent (2020) (total market operations) and *** percent (2022) to *** percent (2020) (open market operations)).[20]

Average unit direct labor cost for total market operations and open market operations declined and then increased, respectively, in 2021 and 2022, while corresponding average unit other factory costs increased in both years for both total market operations and open market operations. As indicated in Part III of this report, Worthington's capacity utilization increased *** in 2021 and then declined *** in 2022; the 2022 decline in capacity utilization reflecting an increase in available capacity in conjunction with the new NRSC production line at its Columbus, Ohio facility and *** increase in NRSC production. Noting a decline in production during 2022, specifically the second half of 2022 compared to first half of 2022, Worthington attributed the increase in its average other factory costs during 2022 to reduced fixed cost absorption.[21]

Gross profit or loss

Gross profit for total market operations and open market operations increased in 2021 and 2022, generally reflecting a combination of higher total sales value and an expansion in gross profit ratio (total gross profit divided by total sales value) (2021) followed by higher sales value and an essentially static gross profit ratio (2022). As noted previously, the increase in total sales value in 2021 for total market operations and open market operations reflects a combination of positive price and volume variances. In contrast, the increase in total sales value in 2022 reflects positive price variances, which more than offset corresponding negative volume variances.

The absence of a more notable expansion of gross profit ratio in 2022 (for either total market operations or open market operations), despite relatively large increases in average unit sales values, reflects corresponding percentage increases in average unit COGS that were only slightly smaller (total market operations) or the same (open market operations) compared to

[20] As noted previously, internal consumption included in total market operations reflects a *** assignment of conversion costs compared to commercial sales. This generally explains the somewhat *** share of total market operations direct labor and other factory costs compared to open market operations.

[21] Petitioner's postconference brief, Exhibit 1, pp. 9-10. ***. Petitioner's postconference brief, Exhibit 15, p. 2.

the percentage changes in corresponding average unit sales values (see table VI-2 and table VI-5).[22]

SG&A expenses and operating income or loss

SG&A expenses for total market operations and open market operations increased to their *** of the period in 2021 and then declined in 2022, remaining above the level reported in 2020. Corresponding SG&A expense ratios (total SG&A expenses divided by total sales value) declined in 2021 and 2022, the increase in sales values effectively offsetting the increase in SG&A expenses in 2021 and then amplifying the positive effect of modestly lower SG&A expenses in 2022.

In 2020 and 2021, the SG&A expense ratio for both total market operations and open market operations exceeded corresponding gross profit ratios (see table VI-1 and table VI-4), yielding operating losses in those years. In 2022, total market operations and open market operations SG&A expense ratios declined ***, reflecting a continued increase in sales value and a decline in total SG&A expenses. As a result, corresponding gross profit ratio modestly exceeded the SG&A expense ratio, yielding the period's only positive operating results.

In response to staff requests for additional information/clarification, Worthington provided explanations regarding ***.[23]

[22] ***. Worthington U.S. producer questionnaire, section III-18.

[23] ***

(*continued*...)

While the explanations provided by the company were largely related to changes in the manner in which SG&A expenses were assigned internally, new and increased SG&A expenses were also noted.[24] A Worthington company official indicated that from an operational perspective there were no large-scale changes impacting the level of SG&A expenses consumed by NRSC activity.[25]

Interest expense, other expenses and income, and net income or loss

Interest expense was the *** item reported below the operating results of total market operations and open market operations.[26] Differing in absolute terms *** by the amount of interest expense reported, the operating and net results of both categories were negative in 2020 and 2021. In 2022, operating results for total market operations were marginally positive, while net results were negative; for open market operations in 2022 operating and net results were both marginally positive.

***. USITC auditor preliminary-phase notes. ***. Email from *** on behalf of Worthington to USITC staff, May 25, 2023.

[24] ***. Petitioner's postconference brief, Exhibit 1, pp. 10-11.

[25] Conference transcript, p. 79 (Bowes).

[26] ***. Worthington U.S. producer questionnaire, section 10a.

Capital expenditures and R&D expenses

Table VI-7 and table VI-9 present the U.S. producer's capital expenditures and R&D expenses related to its NRSC operations, respectively. Table VI-8 and table VI-10 present corresponding narrative descriptions.

Table VI-7
NRSC: U.S. producer's capital expenditures, by period

Value in 1,000 dollars

Item	Measure	2020	2021	2022
Capital expenditures	Value	***	***	***

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

Table VI-8
NRSC: U.S. producer's narrative description of its capital expenditures

Firm	Narrative
Worthington	***

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

Table VI-9
NRSC: U.S. producer's R&D expenses, by period

Value in 1,000 dollars

Item	Measure	2020	2021	2022
R&D expenses	Value	***	***	***

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

Table VI-10
NRSC: U.S. producer's narrative description of its R&D expenses

Firm	Narrative
Worthington	***

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

As indicated previously (see footnote 21), the *** in 2022 depreciation expense, as reported in table VI-1 and table VI-4, are generally related to the investment narratively described in table VI-8.[27]

[27] Petitioner's postconference brief, Exhibit 15, p. 2.

Assets and ROA

Table VI-11 presents data on the U.S. producer's total assets and table VI-12 presents corresponding ROA.[28] Table VI-13 presents the U.S. producer's narrative information regarding aspects of reported asset information.

Table VI-11
NRSC: U.S. producer's total net assets, by period

Value in 1,000 dollars

Item	Measure	2020	2021	2022
Net assets	Value	***	***	***

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

Table VI-12
NRSC: U.S. producer's ROA, by period

Ratios in percent

Item	Measure	2020	2021	2022
Return on assets	Ratio	***	***	***

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

Table VI-13
NRSC: U.S. producer's narrative description of its total net assets

Firm	Narrative
Worthington	***

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

In conjunction with its description of the impact of reduced fixed cost absorption in 2022 (see *Cost of goods sold and gross profit or loss* section), Worthington also noted that the

[28] ROA is calculated here as operating results divided by total assets. With regard to a company's overall operations, staff notes that a total asset value (i.e., the bottom line value on the asset side of a company's balance sheet) reflects an aggregation of a number of current and non-current assets, which, in many instances, are not product specific. The ability of the U.S. producer to assign total asset values to a discrete product line affects the meaningfulness of calculated operating return on net assets.

***.[29]

Capital and investment

The Commission requested the U.S. producer to describe any actual or potential negative effects of imports of NRSCs from India on its growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-14 presents the effects reported and table VI-15 provides the U.S. producer's narrative descriptions.

Table VI-14
NRSC: Count indicating actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2020, by effect

Number of firms reporting

Effect	Category	Count
Cancellation, postponement, or rejection of expansion projects	Investment	***
Denial or rejection of investment proposal	Investment	***
Reduction in the size of capital investments	Investment	***
Return on specific investments negatively impacted	Investment	***
Other investment effects	Investment	***
Any negative effects on investment	Investment	***
Rejection of bank loans	Growth	***
Lowering of credit rating	Growth	***
Problem related to the issue of stocks or bonds	Growth	***
Ability to service debt	Growth	***
Other growth and development effects	Growth	***
Any negative effects on growth and development	Growth	***
Anticipated negative effects of imports	Future	***

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

[29] Petitioner's postconference brief, Exhibit 1, pp. 9-10. ***.

Table VI-15
NRSC: U.S. producer's narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2020

Item	Firm name and accompanying narrative response
Denial or rejection of investment proposal	***
Return on specific investments negatively impacted	***
Other (effects of imports on growth and development)	***
Anticipated effects of imports	***

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

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

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

The industry in India

The Commission issued foreign producers' or exporters' questionnaires to eight firms believed to produce and/or export NRSC from India.[3] Usable responses to the Commission's questionnaires were received from three firms: Bhiwadi Cylinders Private Limited ("Bhiwadi"), Mauria Udyog Limited ("Mauria"), and Inox India Limited ("Inox").[4] These firms' exports to the United States were equivalent to approximately *** U.S. imports of NRSC from India in 2022.[5] According to estimates requested of the responding producers in India, the production of NRSC in India reported in questionnaires accounts for approximately *** percent of overall production of NRSC in India. Table VII-1 presents information on the NRSC operations of the responding producers and exporters in India.

[3] These firms were identified through a review of information submitted in the petition and presented in third-party sources.

[4] The Commission also received a foreign producer/exporter questionnaire responses from ***, who indicated that they had not produced or exported NRSCs from India at any time since January 1, 2020. Foreign producer/exporter questionnaire response.

[5] As detailed in table VII-3, five subject manufacturers of NRSCs have USDOT-39 approval in good standing, which provides them with eligibility to export their NRSCs to the U.S. market: Bhiwadi, Gasolec, Inox, Mauria, and Sapphire (India) Pvt. Ltd ("Sapphire"). Sapphire is ***. Foreign producer/exporter questionnaire, section I-4.

Table VII-1
NRSC: Summary data for producers in India, 2022

Firm	Production (units)	Share of reported production (percent)	Exports to the United States (units)	Share of reported exports to the United States (percent)	Total shipments (units)	Share of firm's total shipments exported to the United States (percent)
Bhiwadi	***	***	***	***	***	***
Inox	***	***	***	***	***	***
Mauria	***	***	***	***	***	***
All firms	***	***	***	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table VII-2 presents events in India's industry since January 1, 2020.

Table VII-2
NRSC: Important industry events in India since 2020

Item	Firm	Event
Certification	Bhiwadi	**2021:** Bhiwadi received approval to produce DOT-39 cylinders at a second unit.
New customer	Bhiwadi	**2021:** After initial discussions in July 2021 and the development of a customized cylinder, domestic producer Quin Global began purchasing NRSCs from Bhiwadi.

Source: Conference transcript, pp. 107-108 (Peterson), 133 (Chopra).

Five subject manufacturers of NRSCs have USDOT-39 approval in good standing, which provides them with eligibility to export their NRSCs to the U.S. market (table VII-3).

Table VII-3
NRSC: Subject foreign manufacturers of steel cylinders in India, USDOT approval status (as of May 2023)

Manufacturer	Status
Inox India Ltd.	Good Standing
Mauria Udyog, Ltd.	Good Standing
Bhiwadi Cylinder Pvt. Ltd.	Good Standing
Sapphire (India) Private Limited.	Good Standing
Gasolec Appliances Pvt. Ltd.	Good Standing
Bhiwadi Cylinders Pvt. Ltd.	Conditional Approval

Source: PHMSA, "Foreign Manufacturers Listing Hazmat Approvals: Cylinders (Updated May 2023), May 16, 2023, https://www.phmsa.dot.gov/approvals-and-permits/hazmat/pressure-vessels-approvals/foreign-manufacturers-listing-hazmat-cylinders-updated-may-2023; https://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/cylinder/manufacturers.aspx.

Note: As of November 2022, no Indian manufacturers are listed as having valid registration to produce cylinders under Transport Canada's TC-39M specifications. See Transport Canada, "Cylinder and Tube Manufacturers – Results, TC Cylinder Specifications: TC-39M," November 15, 2022, https://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/cylinder/manufacturers.aspx.The separate approval statuses for Bhiwadi Cylinder Pvt., Ltd., and Bhiwadi Cylinders, Pvt. Ltd., refer to multiple production facilities owned and operated by Bhiwadi. See Conference transcript p. 133 (Chopra).

Changes in operations

Producers in India were asked to report any change in the character of their operations or organization relating to the production of NRSCs since 2020. *** indicated in their questionnaires that they had experienced such changes. Table VII-4 presents the changes identified by these producers.

Table VII-4
NRSC: Reported changes in operations in India since January 1, 2020, by firm

Item	Firm name and accompanying narrative response
Plant openings	***
Prolonged shutdowns	***
Production curtailments	***
Expansions	***
Expansions	***
Consolidations	***

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

Operations on NRSC

Table VII-5 presents data on Indian producers' installed capacity, practical overall capacity, and practical NRSC capacity and production on the same equipment. Aggregate installed and practical overall capacity increased from 2020-22, for a two-year rise of *** percent and *** percent, respectively, with *** reporting growth in installed and practical overall capacity from 2020-22. In terms of installed overall capacity, *** 2022 installed capacity levels accounted for the largest increase relative to 2020 both by percentage and volume, with a *** percent increase of *** units.[6] *** 2020-22 installed capacity increases were more modest, at *** and *** percent, respectively.

Practical overall capacity levels followed similar trends, with *** reporting net increases in 2022 compared to 2020, for an aggregate increase of *** percent. The firm with the largest increase by volume was once again *** with a *** percent 2020-22 increase of *** units. *** also experienced *** percent growth in practical

[6] ***. Foreign producer/exporter questionnaire response, section II-2a.

overall capacity from 2020-22, accounting for *** of total 2022 practical overall capacity.[7]

Indian producers reported *** percent practical NRSC capacity growth from 2020-22, driven solely by ***, as only *** reported the ability to produce other products on the same equipment and machinery as NRSCs. As a result, the capacity growth reported for practical overall and practical NRSC capacity are identical for ***. In the case of ***, its practical NRSC capacity was the only capacity measure for any firm which showed a decrease of *** percent in practical NRSC capacity from 2021-22. However, this one-year decrease did not offset *** overall net increase of *** percent over the period reported.[8]

Table VII-5
NRSC: Indian producers' installed and practical capacity, production, and utilization, by period

Capacity and production in units; capacity utilization in percent

Item	Measure	2020	2021	2022
Installed overall	Capacity	***	***	***
Installed overall	Production	***	***	***
Installed overall	Utilization	***	***	***
Practical overall	Capacity	***	***	***
Practical overall	Production	***	***	***
Practical overall	Utilization	***	***	***
Practical NRSC	Capacity	***	***	***
Practical NRSC	Production	***	***	***
Practical NRSC	Utilization	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[7] ***. Foreign producer/exporter questionnaire response, section II-2a.

[8] ***. Foreign producer/exporter questionnaire response, sections II-2a and II-3f.

Table VII-6 presents Indian producers' reported capacity constraints since January 1, 2020.

Table VII-6
NRSC: Indian producers' reported capacity constraints since January 1, 2020

Item	Firm name and narrative response on constraints to practical overall capacity
Production bottlenecks	***
Existing labor force	***
Other constraints	***

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

Table VII-7 presents information on the NRSC operations of the responding producers and exporters in India. The aggregate NRSC capacity of responding producers/exporters in India rose each year from 2020-22, for a two-year increase of *** percent, as *** reported two-year gains in practical NRSC capacity. Capacity is then projected to decline *** percent from 2022-23 and remain stable in 2024, putting projected 2024 capacity *** percent higher than 2020 levels.[9]

Production peaked in 2021 with an increase of *** percent from 2020, with *** reporting increases in production. *** reported the largest 2020-21 production increases by volume, with production rising by *** and *** units, respectively.[10] [11] Production subsequently fell *** percent in 2021-22, but aggregate production volume nonetheless *** across 2020-22, and is projected to increase steadily by *** percent through 2024.[12] The yearly increase in capacity from 2020-22,

[9] The projected decrease in practical NRSC capacity from 2022-23 is due to the anticipated effect of the AIM Act and the United States Environmental Protection Agency's ("EPA") ban on imports of NRSCs to be filled with certain refrigerant gases. Bhiwadi states that "we intend to give up {Bhiwadi's} DOT 39 manufacturing lines, which means we will no longer be using this plant to manufacture DOT 39 cylinders. We are gradually reducing our NRSC production and working on other products." Conference transcript, p. 102 (Kaur). ***. *** foreign producer questionnaire, section II-9.

[10] (***) cited government mandated plant shutdowns due to Covid-19 which affected production levels in 2020. Foreign producer/exporter questionnaire, section II-2a and II-2b.

[11] *** 2020-21 production growth was driven by comparable growth in U.S. exports, which rose by *** units over the same period for each firm.

[12] Bhiwadi noted the impact of a helium shortage on global demand for NRSCs in 2022, stating that "helium from Russia is no longer available because of the war and sanctions, as well as fires and explosions at a large helium plant in Siberia in 2021 and 2022. Helium is one of the gases used to fill the NRSCs. As such, all cylinder producers experienced a decrease in demand – especially those who are in the helium cylinder business." Conference transcript, pp. 100-101 (Kaur); Bhiwadi postconference brief, exh. 2.

combined with the irregular increase in production, led to capacity utilization peaking in 2021, although 2022 utilization levels remained *** percentage points higher than in 2020. Capacity utilization is projected to rise by *** percentage points from 2022-24, due to the projected modest decline in capacity and projected growth in home market shipments as exports to the U.S. are projected to decline.

Indian producers' exports to the United States grew more than *** from 2020-21, before declining *** percent from 2021-22, for a more than *** increase from 2020-22. *** reported the largest 2020-22 increase in U.S. exports both in absolute quantity and compared to 2020 levels, with an *** increase of just over *** units in 2022 compared to 2020. While U.S. export volumes are expected to decline each year from 2022-24, projected U.S. exports from all subject producers in 2024 would still represent a *** increase compared to 2020. In contrast, home market shipments, which consist ***, showed an irregular decrease of *** percent from 2020-22, but are projected to increase annually from 2022-24.[13] *** projected increases in home market shipments from 2022-24, with Inox citing projected demand of 100,000 units per month from its largest customer, due to a new plant being set up outside India and the U.S. by this customer.[14] Bhiwadi cited "sizeable and growing home market sales for empty {NRSCs} that are filled in India by Indian gas manufacturers and then exported."[15] Projected home market shipments in 2024 represent *** percent growth compared to 2022 level, the period with the fewest home market shipments.

The opposing trends of an irregular increase in U.S. exports and an irregular decrease in home market shipments from 2020-22 resulted in U.S. exports rising *** percentage points as a share of total shipments over that period. However, projections for 2023-24 show this trend reversing, with U.S. exports losing *** percentage points as a share of total shipments and home market shipments rising by *** percentage points to account for a majority of all

[13] Home market shipments by Indian producers/exporters consist entirely of NRSCs that are sold to Indian firms which fill the NRSCs for export, as NRSCs are prohibited by government mandate to be sold to end users domestically. Conference transcript, p. 115 (Acharya); Bhiwadi and Mauria conference testimony, p. 3.

[14] Inox also noted that it experienced a decline in home market sales in 2022 due to the decline in sales by this customer, which accounts for 50 percent of Inox's home market sales. Conference transcript, p. 113 (Raghuwanshi).

[15] Conference transcript, p. 103 (Kaur).

shipments by Indian producers/exporters.[16] Exports to other markets never accounted for more than *** percent of total shipments from 2020-22, although they are projected to increase to *** percent in 2024.[17] Indian producers' inventory of NRSCs never exceeded *** percent as a ratio to production or total shipments, in any period reported or projected from 2020-24.

[16] Although Inox had the ***, it projects that its U.S. exports will decline in 2023-24, due to the combination of Worthington's enhanced capacity following the expansion at the Columbus, OH facility, and the impact of the EPA ban on imports of NRSCs to be filled with certain refrigerant gases. Conference transcript, pp. 110-111 (Raghuwanshi); Foreign producer/exporter questionnaire, section II-9.

[17] ***, the only firms which reported exports to markets other than the United States, both listed *** as their principal export markets, with *** additionally listing ***. Of these two firms, *** comprised *** percent of exports to other markets from 2020-22, but projects that it will comprise *** percent of exports to other markets from 2023-24, citing anticipated ***. Foreign producer/exporter questionnaire, section II-9.

Table VII-7
NRSC: Data on industry in India, by period

Quantity in units; ratio and share in percent

Item	2020	2021	2022	Projection 2023	Projection 2024
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Internal consumption	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Home market shipments	***	***	***	***	***
Exports to the United States	***	***	***	***	***
Exports to all other markets	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
Capacity utilization ratio	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***
Internal consumption share	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***
Home market shipments share	***	***	***	***	***
Exports to the United States share	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***
Export shipments share	***	***	***	***	***
Total shipments share	***	***	***	***	***

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

Alternative products

*** produced other products on the same equipment and machinery used to produce NRSCs.[18] As shown in table VII-8, *** production of other products saw an irregular decline of *** percent across 2020-22, first falling *** percent from 2020-21 before rising *** percent from 2021-22. This irregular decrease contrasted with a *** irregular increase in the production of NRSCs across the same 2020-22 period. Consequently, other products' share of total production on the same equipment and machinery showed a net decline of *** percentage points from 2020-22, due primarily to the net increase in production volumes of NRSCs during that period.

Table VII-8
NRSC: Indian producers' overall production on the same equipment as subject production, by period

Quantity in units; share in percent

Product type	Measure	2020	2021	2022
NRSC	Quantity	***	***	***
Other products	Quantity	***	***	***
All products	Quantity	***	***	***
NRSC	Share	***	***	***
Other products	Share	***	***	***
All products	Share	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Exports

According to GTA, the leading export markets for NRSCs from India, by value, are the United States, Thailand, and Indonesia (table VII-9). During 2022, the United States was the top export market for NRSCs from India, by value, accounting for 30.2 percent, followed by Thailand, accounting for 7.2 percent.

[18] Other than ***, no responding firms in India reported the ability to produce other products on the same equipment and machinery used to produce NRSCs. *** reports that it is able to switch production from NRSC to ***. Foreign producer/exporter response, section II-4a.

Table VII-9
NRSC: Exports from India, by period

Value in 1,000 dollars; shares in percent

Destination market	Measure	2020	2021	2022
United States	Value	9,880	44,584	59,245
Thailand	Value	4,733	12,152	14,049
Indonesia	Value	9,353	13,816	12,432
Singapore	Value	2,192	2,933	7,925
South Africa	Value	4,699	6,470	6,223
Saudi Arabia	Value	4,156	8,073	6,150
Bangladesh	Value	3,483	4,600	5,880
Somalia	Value	52	472	5,822
Nepal	Value	5,170	7,254	5,723
All other destination markets	Value	57,530	71,350	73,015
All destination markets	Value	101,248	171,704	196,465
United States	Share	9.8	26.0	30.2
Thailand	Share	4.7	7.1	7.2
Indonesia	Share	9.2	8.0	6.3
Singapore	Share	2.2	1.7	4.0
South Africa	Share	4.6	3.8	3.2
Saudi Arabia	Share	4.1	4.7	3.1
Bangladesh	Share	3.4	2.7	3.0
Somalia	Share	0.1	0.3	3.0
Nepal	Share	5.1	4.2	2.9
All other destination markets	Share	56.8	41.6	37.2
All destination markets	Share	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 7311.00 and 7310.29 as reported by India Ministry of Commerce in the Global Trade Atlas database, accessed May 05, 2023.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top, all remaining top export destinations shown in descending order of 2022 data.

U.S. inventories of imported merchandise

Table VII-10 presents data on U.S. importers' reported inventories of NRSCs. U.S. importers' inventories of NRSCs from India increased yearly from 2020 to 2022, with a net increase of *** percent. The net increase in subject inventories from 2020-22 was driven primarily by a *** percent increase of *** units reported by ***, along with smaller increases in inventory reported by *** additional firms from 2020-22.[19] Meanwhile, the ratio of subject inventories to imports declined irregularly by *** percentage points, and the ratio of subject inventories to U.S. and total shipments declined irregularly by *** percentage points over the same period.

Inventories of nonsubject imports, on the other hand, decreased irregularly from 2020 to 2022 by *** percent, while the ratio of nonsubject inventories to imports, U.S., and total shipments each increased irregularly by between *** and *** percentage points. The 2020-22 decline in nonsubject inventories was driven primarily by the *** decline reported by ***, the largest nonsubject importer, by quantity, from 2020-22. However, *** reported a *** unit increase in nonsubject inventories from 2020-22, partially offsetting the decline by ***, and accounting for *** percent of total nonsubject imports in 2022.[20]

The magnitude of the increase in subject inventories outpaced the simultaneous decrease in nonsubject inventories, resulting in total inventories rising by *** percent from 2020-22, and increases of between *** and *** percentage points for total inventories as a ratio to imports, U.S., and total shipments across the same period.

[19] Worthington noted that there has been a "large increase in the demand for disposable cylinders by customers trying to build a stock of refrigerant-filled cylinders in anticipation of {the EPA ban on HFC-filled NRSC}." Conference transcript, p. 19 (Bowes).

[20] *** nonsubject imports came exclusively from ***, while *** nonsubject imports came from ***. Importer questionnaire response, section II-6a.

Table VII-10
NRSC: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in units; ratios in percent

Measure	Source	2020	2021	2022
Inventories quantity	India	***	***	***
Ratio to imports	India	***	***	***
Ratio to U.S. shipments of imports	India	***	***	***
Ratio to total shipments of imports	India	***	***	***
Inventories quantity	Nonsubject	***	***	***
Ratio to imports	Nonsubject	***	***	***
Ratio to U.S. shipments of imports	Nonsubject	***	***	***
Ratio to total shipments of imports	Nonsubject	***	***	***
Inventories quantity	All	***	***	***
Ratio to imports	All	***	***	***
Ratio to U.S. shipments of imports	All	***	***	***
Ratio to total shipments of imports	All	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of NRSCs from India after December 31, 2022. Their reported data is presented in table VII-11. Seven importers reported outstanding orders through the fourth quarter of 2023, with subject imports from India accounting for *** percent of outstanding orders reported between January and December 2023. *** accounted for all outstanding orders from nonsubject sources.[21] Among the six firms which reported outstanding orders of NRSCs from India, *** accounted for *** percent of such orders in the first quarter of 2023 and *** percent in the second quarter, the largest share of any firm.

[21] *** stated that, ***. The only arranged imports reported by *** were ***. Importer questionnaire response, sections II-3 and II-4.

Table VII-11
NRSC: U.S. importers' arranged imports, by source and period

Quantity in units

Source	Jan-Mar 2023	Apr-Jun 2023	Jul-Sept 2023	Oct-Dec 2023	Total
India	***	***	***	***	***
Nonsubect sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Third-country trade actions

Based on available information, NRSC from India have not been subject to other antidumping or countervailing duty investigations outside the United States.

Information on nonsubject countries

Worthington has one NRSC production facility in Guimaraẽs, Portugal, as part of its June 2017 acquisition of Amtrol-Alfa Metalomecanica S.A.[22] Sixteen nonsubject foreign manufacturers have USDOT-39 or UNISO 11118 certification approval in good standing, TC-39M valid registration, or both, which provides them with eligibility to export their NRSC to the U.S. market (table VII-12).

Table VII-12
NRSC: Nonsubject foreign manufacturers of steel cylinders, USDOT approval (as of May 2023) or Transport Canada registration (as of November 2022) status

Manufacturer	Location	Specification	Status
Gas Cylinder Technologies, Inc.	Canada	DOT-39, TC-39M	Good Standing, TC registered
AMTROL-ALFA Metalomecanica, S.A.	Portugal	DOT-39	Good Standing
LBM Techno Gas GmbH	Germany	DOT-39	Good Standing
Worthington Cylinders-Portugal/ Embalagens Industrials de Gas, SA (EIG)	Portugal	DOT-39	Expired
Yongkang Hua Er Cylinder Mfg. Co. (Flying Eagle)	China	DOT-39	N/A
Zhejiang Jucheng Cylinder Co.	China	DOT-39	Good Standing
Zhejiang Kin-Shine Technology Co. Ltd.	China	DOT-39	Good Standing
WuYi Xilinde Machinery Manufacture Co. Ltd	China	DOT-39	Good Standing
Shanghai Ronghua High-Pressure Vessel Co. Ltd.	China	DOT-39	Terminated

[22] LPGas Magazine, "Worthington Industries Acquires Pressure Cylinder Manufacturer," July 11, 2017, https://www.lpgasmagazine.com/worthington-industries-acquires-pressure-cylinder-manufacturer/.

Manufacturer	Location	Specification	Status
Zhejiang Ansheng Mechanical Manufacture Co. Ltd.	China	DOT-39	Good Standing
Sanjiang Kaiyuan Co. Ltd.	China	DOT-39	Good Standing
Shandong Xinhao Special Equipment Co., Ltd.	China	DOT-39	Expired
Ningbo Runkey CGA Cylinders Co., Ltd.	China	DOT-39, TC-39M	Good Standing, TC registered
Jinhua Sinoblue Machinery Manufacturing Co. Ltd	China	DOT-39	Good Standing
Ningbo ZhengXin Fire-Fighting Equipment Co., Ltd.	China	DOT-39	Good Standing
KY Industrial Co., Ltd.	South Korea	DOT-39	Good Standing
Jiangsu Kasidi Chemical Machinery Co., LTD.	China	DOT-39	Good Standing
Zhejiang Huijin Machinery Manufacture Co., Ltd.	China	DOT-39	Good Standing
Cixi Longfa Aluminum Jar-Making Co, Ltd.	China	DOT-39	Good Standing
Ningbo D&H Machinery Mfg Co., Ltd.	China	DOT-39	Good Standing
Superview Metals Manufacturing Industry Ltd.	United Arab Emirates	DOT-39	Conditional Approval
Ningbo Tianbo Fire Fighting Equipment Co.	China	DOT-39	Conditional Approval
Quzhou Yong An New Energy Technology Co., Ltd.	China	DOT-39	Conditional Approval
Xinchang Country Burong Machinery Co. - LTD.	China	DOT-39	Conditional Approval

Source: PHMSA, "Foreign Manufacturers Listing Hazmat Approvals: Cylinders (Updated May 2023), May 16, 2023, https://www.phmsa.dot.gov/approvals-and-permits/hazmat/pressure-vessels-approvals/foreign-manufacturers-listing-hazmat-cylinders-updated-may-2023; Transport Canada, "Cylinder and Tube Manufacturers – Results, TC Cylinder Specifications: TC-39M," November 15, 2022, https://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/cylinder/manufacturers.aspx.

Data on global exports of iron or steel containers for compressed or liquefied gas, or other materials (including NRSCs), during 2020-22 are presented in table VII-13. In 2022, China (24.0 percent), the United States (10.1 percent), Italy (7.6 percent), and Germany (7.1 percent) were the largest exporters by value, together accounting for 48.8 percent of all global exports.

Table VII-13
Iron or steel containers for compressed or liquefied gas or other materials: Global exports by exporter and period

Value in 1,000 dollars; share in percent

Exporting country	Measure	2020	2021	2022
United States	Value	579,031	662,672	734,011
India	Value	101,248	171,704	196,465
China	Value	1,233,249	1,760,282	1,747,341
Italy	Value	433,752	526,452	551,709
Germany	Value	399,794	481,080	520,296
South Korea	Value	353,252	367,805	346,849
Turkey	Value	210,460	277,736	325,731
Czech Republic	Value	243,842	293,885	309,353
Poland	Value	175,615	204,500	251,802
Thailand	Value	257,952	269,418	245,424
Portugal	Value	150,308	169,484	219,420
Netherlands	Value	108,467	146,405	181,016
All other exporters	Value	1,606,368	1,843,772	1,650,272
All reporting exporters	Value	5,853,338	7,175,193	7,279,688
United States	Share	9.9	9.2	10.1
India	Share	1.7	2.4	2.7
China	Share	21.1	24.5	24.0
Italy	Share	7.4	7.3	7.6
Germany	Share	6.8	6.7	7.1
South Korea	Share	6.0	5.1	4.8
Turkey	Share	3.6	3.9	4.5
Czech Republic	Share	4.2	4.1	4.2
Poland	Share	3.0	2.9	3.5
Thailand	Share	4.4	3.8	3.4
Portugal	Share	2.6	2.4	3.0
Netherlands	Share	1.9	2.0	2.5
All other exporters	Share	27.4	25.7	22.7
All reporting exporters	Share	100.0	100.0	100.0

Source: Official export statistics under HS subheading 7310.29 and 7311.00, as reported by various national statistical authorities in the S&P Global Trade Atlas database, accessed May 5, 2023.

Note: Shares and ratios shown as “0.0” represent values greater than zero but less than “0.05” percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---”. United States is shown at the top followed by the country under investigation, all remaining top exporting countries in descending order of 2022 data.

The industry in China

China was the largest global exporter of iron or steel containers for compressed or liquefied gas or other materials (including NRSCs) in 2022,[23] and the largest source of U.S. imports, by value, accounting for 20.9 percent.[24] During the 2021 investigation on NRSCs from China, the Commission identified 16 firms believed to produce and/or export NRSCs from China. The Commission determined that the United States was materially injured by imports of NRSCs from China that had been found by the Department of Commerce to be subsidized and sold at less than fair value.[25] As of May 2021, NRSCs from China are subject to antidumping margins between 74.32 percent and 112.21 percent, and countervailing duty margins between 18.37 percent and 186.18 percent.[26] Table VII-14 presents exports of iron or steel containers for compressed or liquefied gas or other materials (including NRSCs) from China for the years 2020-2022. In 2022, the United States was the largest destination market for these exports, accounting for 15.4 percent. Germany and Vietnam were the second and third largest destinations markets, accounting for 3.6 percent and 3.5 percent, respectively.

[23] Official export statistics under HS subheadings 7310.29 and 7311.00, as reported by China customs in the S&P Global Trade Atlas database, accessed May 5, 2023.

[24] Official U.S. import statistics under HTS statistical reporting numbers 7310.29.0030, 7310.29.0065, 7311.00.0060, and 7311.00.0090, as reported by DataWeb/Census, accessed May 5, 2023.

[25] Non-Refillable Steel Cylinders from China, Investigation Nos. 701-TA-644 and 731-TA-1494 (Final), USITC Publication 5188, May 2021.

[26] 86 FR 25839, May 11, 2021. On May 26, 2023, Commerce initiated a circumvention inquiry to determine whether imports of non-refillable cylinders with a water capacity between 100 and 299 cubic inches are circumventing AD/CVD orders on NRSC from China. 88 FR 35839, June 1, 2023.

Table VII-14
Iron or steel containers for compressed or liquefied gas or other materials: Exports from China, by destination market and by period

Value in 1,000 dollars; shares in percent

Destination market	Measure	2020	2021	2022
United States	Value	201,818	270,404	268,414
Germany	Value	50,024	75,514	63,049
Vietnam	Value	30,140	51,784	61,766
Malaysia	Value	25,456	44,195	55,945
India	Value	24,395	66,322	55,822
Netherlands	Value	52,833	76,145	54,844
Japan	Value	34,735	37,549	53,653
United Kingdom	Value	46,033	56,568	52,653
South Korea	Value	29,823	81,095	49,708
All other destination markets	Value	737,991	1,000,705	1,031,486
All destination markets	Value	1,233,249	1,760,282	1,747,341
United States	Share	16.4	15.4	15.4
Germany	Share	4.1	4.3	3.6
Vietnam	Share	2.4	2.9	3.5
Malaysia	Share	2.1	2.5	3.2
India	Share	2.0	3.8	3.2
Netherlands	Share	4.3	4.3	3.1
Japan	Share	2.8	2.1	3.1
United Kingdom	Share	3.7	3.2	3.0
South Korea	Share	2.4	4.6	2.8
All other destination markets	Share	59.8	56.8	59.0
All destination markets	Share	100.0	100.0	100.0

Source: Official export statistics under HS subheadings 7310.29 and 7311.00, as reported by China customs in the S&P Global Trade Atlas database, accessed May 5, 2023.

Note: Shares and ratios shown as “0.0” represent values greater than zero but less than “0.05” percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---”. United States is shown at the top followed by the country under investigation, all remaining top exporting countries in descending order of 2022 data.

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
88 FR 27920, May 3, 2023	*Non-Refillable Steel Cylinders From India; Institution of Anti-Dumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.govinfo.gov/content/pkg/FR-2023-05-03/pdf/2023-09364.pdf
88 FR 33571, May 24, 2023	*Certain Non-Refillable Steel Cylinders from India: Initiation of Less-Than-Fair-Value Investigation*	https://www.govinfo.gov/content/pkg/FR-2023-05-24/pdf/2023-11003.pdf
88 FR 33580, May 24, 2023	*Certain Non-Refillable Steel Cylinders from India: Initiation of Countervailing Duty Investigation*	https://www.govinfo.gov/content/pkg/FR-2023-05-24/pdf/2023-11004.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared in the United States International Trade Commission's preliminary conference via videoconference:

Subject: Non- Refillable Steel Cylinders from India

Inv. Nos.: 701-TA-689 and 731-TA-1618 (Preliminary)

Date and Time: May 18, 2023 - 9:30 a.m.

OPENING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**¸ Kelley Drye & Warren LLP)
In Opposition to Imposition
(**Dharmendra N. Choudhary**, Grunfeld, Desiderio, Lebowitz, Silverman & Klestadt LLP)

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

Kelley Drye & Warren LLP
Washington, DC
on behalf of

Worthington Industries

James Bowes, Vice President and General Manager of Building Products,
Worthington Industries

Wayne Powers, Director of Sales for Non-Refillable Cylinders,
Worthington Industries

Michael Kerwin, Economic Consultant, Georgetown Economic Services LLC

Nereus Joubert, Economic Consultant, Georgetown Economic Services LL

Paul C. Rosenthal)
R. Alan Luberda) – OF COUNSEL
Brooke M. Ringel)

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

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

Bhiwadi Cylinders Pvt. Ltd.
Mauria Udyog Ltd.

Prabhsimran Kaur, Additional Director, Bhiwadi Cylinders Pvt. Ltd.

Manvinder Singh, Managing Director, Bhiwadi Cylinders Pvt. Ltd.

Rajneesh Chopra, Director, Bhiwadi Cylinders Pvt. Ltd.

Sukhman Kaur, Additional Director, Bhiwadi Cylinders Pvt. Ltd.

Matt Petersen, Director of Innovation, Quin Global

Chris Carbaugh, President, North America, Quin Global

Jon Petersen, Director, North America, Quin Global

Dharmendra N. Choudhary)
) – OF COUNSEL
Kavita Mohan)

TPM Solicitors & Consultants
Saket, New Delhi
on behalf of

Inox India Limited

Deepak Acharya, Chief Executive Officer, Inox India Limited

Sunil Lavati, Assistant Vice President Finance & Accounts, Inox India Limited

Sudhir Sethi, Chief People Officer & Head Legal, Inox India Limited

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

Vijay Gandhi, Deputy General Manager Production, Inox India Limited

A K Gupta)
Vikas Arora)
Namrita Raghuwanshi)
) – OF COUNSEL
Kalpesh Gupta)
Rudra Pratap Singh)
Suhani Chanchlani)

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**¸ Kelley Drye & Warren LLP)
In Opposition to Imposition
(**Kavita Mohan**, Grunfeld, Desiderio, Lebowitz, Silverman & Klestadt LLP)

-END-

APPENDIX C

SUMMARY DATA

Total market

Table C-1

NRSC: Summary data concerning the U.S. total market, by item and period

Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted

Item	Reported data, Calendar year 2020	2021	2022	Period changes, Comparison years 2020-22	2020-21	2021-22
U.S. total market consumption quantity:						
Amount	***	***	***	▲***	▲***	▼***
Producers' share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
India	***	***	***	▲***	▲***	▲***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. total market consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1)	***	***	***	▼***	▼***	▼***
Importers' share (fn1):						
India	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from:						
India:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Nonsubject sources:						
Quantity	***	***	***	▼***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▲***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producers':						
Practical capacity quantity	***	***	***	▲***	▲***	▲***
Production quantity	***	***	***	▲***	▲***	▲***
Capacity utilization (fn1)	***	***	***	▼***	▲***	▼***
U.S. shipments:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Export shipments:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▼***	▲***
Unit value	***	***	***	▲***	▼***	▲***

Table continued.

Table C-1 Continued

NRSC: Summary data concerning the U.S. total market, by item and period

Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted

Item	Reported data			Period changes		
	Calendar year			Comparison years		
	2020	2021	2022	2020-22	2020-21	2021-22
U.S. producers':-- Continued						
Ending inventory quantity	***	***	***	▲***	▼***	▲***
Inventories/total shipments (fn1)	***	***	***	▲***	▼***	▲***
Production workers	***	***	***	▲***	▼***	▲***
Hours worked (1,000s)	***	***	***	▲***	▼***	▲***
Wages paid ($1,000)	***	***	***	▲***	▲***	▲***
Hourly wages (dollars per hour)	***	***	***	▲***	▲***	▲***
Productivity (units per hour)	***	***	***	▼***	▲***	▼***
Unit labor costs	***	***	***	▲***	▲***	▲***
Net sales:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	▲***	▲***	▲***
Gross profit or (loss) (fn2)	***	***	***	▲***	▲***	▲***
SG&A expenses	***	***	***	▲***	▲***	▼***
Operating income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Net income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Unit COGS	***	***	***	▲***	▲***	▲***
Unit SG&A expenses	***	***	***	▲***	▲***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Unit net income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
COGS/sales (fn1)	***	***	***	▼***	▼***	▼***
Operating income or (loss)/sales (fn1)	***	***	***	▲***	▲***	▲***
Net income or (loss)/sales (fn1)	***	***	***	▲***	▲***	▲***
Capital expenditures	***	***	***	▲***	▲***	▼***
Research and development expenses	***	***	***	▲***	▼***	▲***
Net assets	***	***	***	▲***	▲***	▲***

Source: Compiled from data submitted in response to Commission questionnaires. 508-compliant tables containing these data are contained in parts III, IV, VI, and VII of this report.

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Merchant market

Table C-2

NRSC: Summary data concerning the U.S. merchant market, by item and period

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

Item	Reported data, Calendar year 2020	2021	2022	Period changes, Comparison years 2020-22	2020-21	2021-22
U.S. merchant market consumption quantity:						
Amount	***	***	***	▲***	▲***	▼***
Producers' share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
India	***	***	***	▲***	▲***	▲***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. merchant market consumption value:						
Amount	***	***	***	▲***	▲***	▲***
Producers' share (fn1)	***	***	***	▼***	▼***	▼***
Importers' share (fn1):						
India	***	***	***	▲***	▲***	▼***
Nonsubject sources	***	***	***	▼***	▼***	▲***
All import sources	***	***	***	▲***	▲***	▲***
U.S. importers' U.S. shipments of imports from:						
India:						
Quantity	***	***	***	▲***	▲***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Nonsubject sources:						
Quantity	***	***	***	▼***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▼***	▼***	▲***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producers':						
Commercial U.S. shipments:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***

Table continued.

Table C-2 Continued

NRSC: Summary data concerning the U.S. merchant market, by item and period

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

Item	Reported data			Period changes		
	Calendar year			Comparison years		
	2020	2021	2022	2020-22	2020-21	2021-22
U.S. producers': Continued						
Commercial sales:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▲***	▲***
Unit value	***	***	***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	▲***	▲***	▲***
Gross profit or (loss) (fn2)	***	***	***	▲***	▲***	▲***
SG&A expenses	***	***	***	▲***	▲***	▼***
Operating income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Net income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Unit COGS	***	***	***	▲***	▲***	▲***
Unit SG&A expenses	***	***	***	▲***	▲***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
Unit net income or (loss) (fn2)	***	***	***	▲***	▲***	▲***
COGS/sales (fn1)	***	***	***	▼***	▼***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	▲***	▲***	▲***
Net income or (loss)/sales (fn1)	***	***	***	▲***	▲***	▲***

Source: Compiled from data submitted in response to Commission questionnaires. 508-compliant tables containing these data are contained in parts III, IV, VI, and VII of this report.

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided

APPENDIX D

U.S. IMPORTS BY YEAR, MONTH, AND SOURCE

Table D-1
NRSC: U.S. imports, by year, month, and source

Quantity in units

Year	Month	India	China	All other sources	Nonsubject sources	All import sources
2020	January	155	406,596	241,022	647,618	647,773
2020	February	68,384	265,677	274,372	540,049	608,433
2020	March	114	108,414	316,140	424,554	424,668
2020	April	7	531,748	281,281	813,029	813,036
2020	May	105	853,507	258,740	1,112,247	1,112,352
2020	June	3,464	475,539	429,638	905,177	908,641
2020	July	11	518,829	441,362	960,191	960,202
2020	August	47	515,604	370,452	886,056	886,103
2020	September	4,622	131,998	337,094	469,092	473,714
2020	October	30,035	910,919	443,862	1,354,781	1,384,816
2020	November	73,297	36,536	626,994	663,530	736,827
2020	December	99,178	51,951	434,003	485,954	585,132
2021	January	77,532	45,370	370,444	415,814	493,346
2021	February	83,198	53,191	484,456	537,647	620,845
2021	March	180,947	76,077	577,500	653,577	834,524
2021	April	196,434	357,449	534,497	891,946	1,088,380
2021	May	183,750	443,736	636,782	1,080,518	1,264,268
2021	June	168,332	58,468	603,889	662,357	830,689
2021	July	154,669	76,545	477,831	554,376	709,045
2021	August	210,667	115,300	666,315	781,615	992,282
2021	September	348,539	97,725	422,483	520,208	868,747
2021	October	291,125	140,548	591,065	731,613	1,022,738
2021	November	274,215	162,768	539,705	702,473	976,688
2021	December	337,320	150,682	634,072	784,754	1,122,074

Table continued.

Table D-1 Continued
NRSC: U.S. imports, by year, month, and source

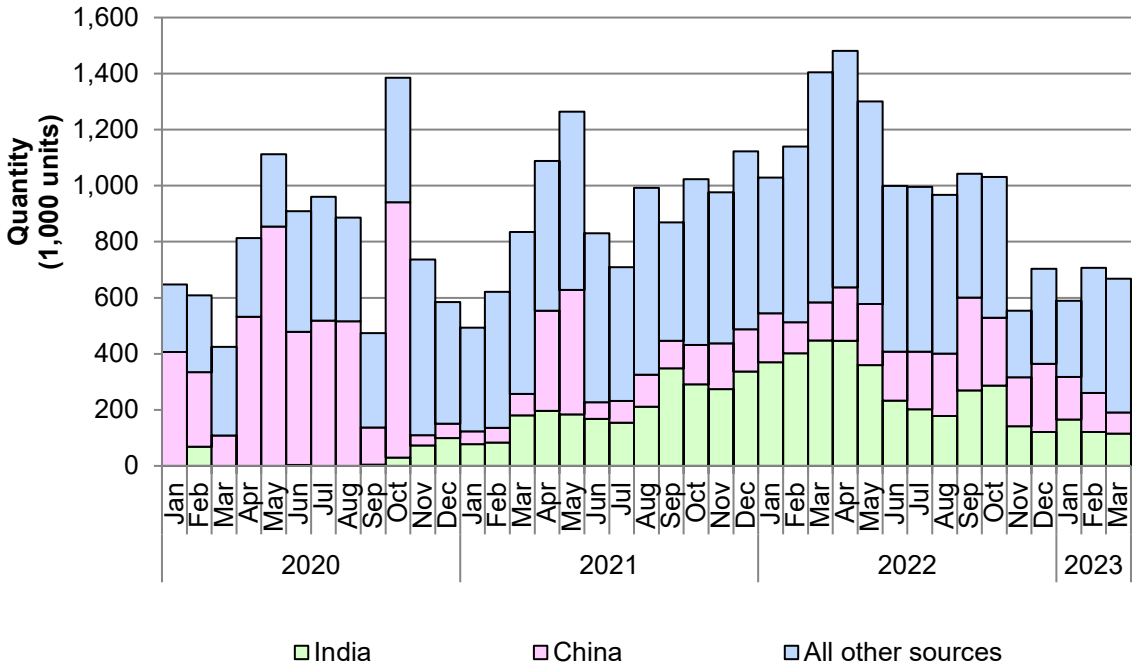
Quantity in units

Year	Month	India	China	All other sources	Nonsubject sources	All import sources
2022	January	370,076	174,275	484,262	658,537	1,028,613
2022	February	402,069	110,085	627,174	737,259	1,139,328
2022	March	447,648	135,644	820,721	956,365	1,404,013
2022	April	446,309	191,248	843,824	1,035,072	1,481,381
2022	May	360,208	217,103	723,590	940,693	1,300,901
2022	June	233,211	174,350	591,692	766,042	999,253
2022	July	201,967	205,840	587,509	793,349	995,316
2022	August	177,736	223,157	566,712	789,869	967,605
2022	September	269,270	331,507	441,750	773,257	1,042,527
2022	October	286,289	242,787	502,574	745,361	1,031,650
2022	November	141,933	173,899	238,070	411,969	553,902
2022	December	120,996	243,709	339,176	582,885	703,881
2023	January	165,559	151,290	272,380	423,670	589,229
2023	February	121,095	138,771	446,480	585,251	706,346
2023	March	115,270	74,974	477,829	552,803	668,073

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 7311.00.0060 and 7311.00.0090, accessed May 10, 2023. Imports are based on the imports for consumption data series.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure D-1
NRSC: Quantity of U.S. imports, by month and source



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 7311.00.0060 and 7311.00.0090, accessed May 10, 2023. Imports are based on the imports for consumption data series.

Table D-2
NRSC: Share of U.S. imports, by year, month, and source

Share in percent

Year	Month	India	China	All other sources	Nonsubject sources	All import sources
2020	January	0.0	62.8	37.2	100.0	100.0
2020	February	11.2	43.7	45.1	88.8	100.0
2020	March	0.0	25.5	74.4	100.0	100.0
2020	April	0.0	65.4	34.6	100.0	100.0
2020	May	0.0	76.7	23.3	100.0	100.0
2020	June	0.4	52.3	47.3	99.6	100.0
2020	July	0.0	54.0	46.0	100.0	100.0
2020	August	0.0	58.2	41.8	100.0	100.0
2020	September	1.0	27.9	71.2	99.0	100.0
2020	October	2.2	65.8	32.1	97.8	100.0
2020	November	9.9	5.0	85.1	90.1	100.0
2020	December	16.9	8.9	74.2	83.1	100.0
2021	January	15.7	9.2	75.1	84.3	100.0
2021	February	13.4	8.6	78.0	86.6	100.0
2021	March	21.7	9.1	69.2	78.3	100.0
2021	April	18.0	32.8	49.1	82.0	100.0
2021	May	14.5	35.1	50.4	85.5	100.0
2021	June	20.3	7.0	72.7	79.7	100.0
2021	July	21.8	10.8	67.4	78.2	100.0
2021	August	21.2	11.6	67.1	78.8	100.0
2021	September	40.1	11.2	48.6	59.9	100.0
2021	October	28.5	13.7	57.8	71.5	100.0
2021	November	28.1	16.7	55.3	71.9	100.0
2021	December	30.1	13.4	56.5	69.9	100.0

Table continued.

Table D-2 Continued
NRSC: Share of U.S. imports, by year, month, and source

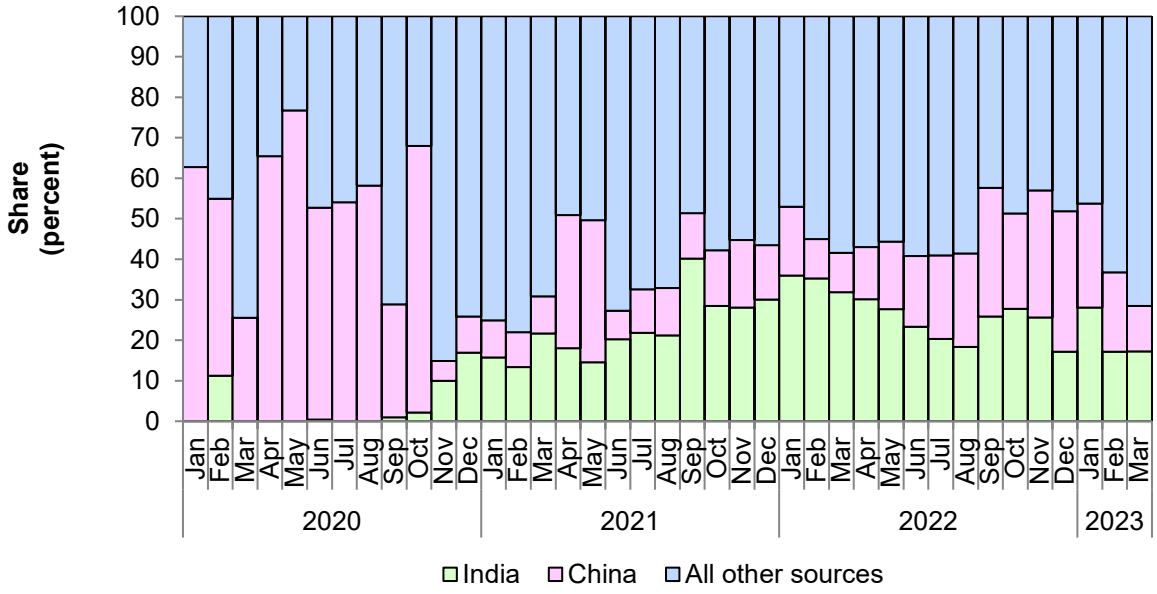
Share in percent

Year	Month	India	China	All other sources	Nonsubject sources	All import sources
2022	January	36.0	16.9	47.1	64.0	100.0
2022	February	35.3	9.7	55.0	64.7	100.0
2022	March	31.9	9.7	58.5	68.1	100.0
2022	April	30.1	12.9	57.0	69.9	100.0
2022	May	27.7	16.7	55.6	72.3	100.0
2022	June	23.3	17.4	59.2	76.7	100.0
2022	July	20.3	20.7	59.0	79.7	100.0
2022	August	18.4	23.1	58.6	81.6	100.0
2022	September	25.8	31.8	42.4	74.2	100.0
2022	October	27.8	23.5	48.7	72.2	100.0
2022	November	25.6	31.4	43.0	74.4	100.0
2022	December	17.2	34.6	48.2	82.8	100.0
2023	January	28.1	25.7	46.2	71.9	100.0
2023	February	17.1	19.6	63.2	82.9	100.0
2023	March	17.3	11.2	71.5	82.7	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 7311.00.0060 and 7311.00.0090, accessed May 10, 2023. Imports are based on the imports for consumption data series.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure D-2
NRSC: Share of U.S. imports, by month and source



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting numbers 7311.00.0060 and 7311.00.0090, accessed May 10, 2023. Imports are based on the imports for consumption data series.