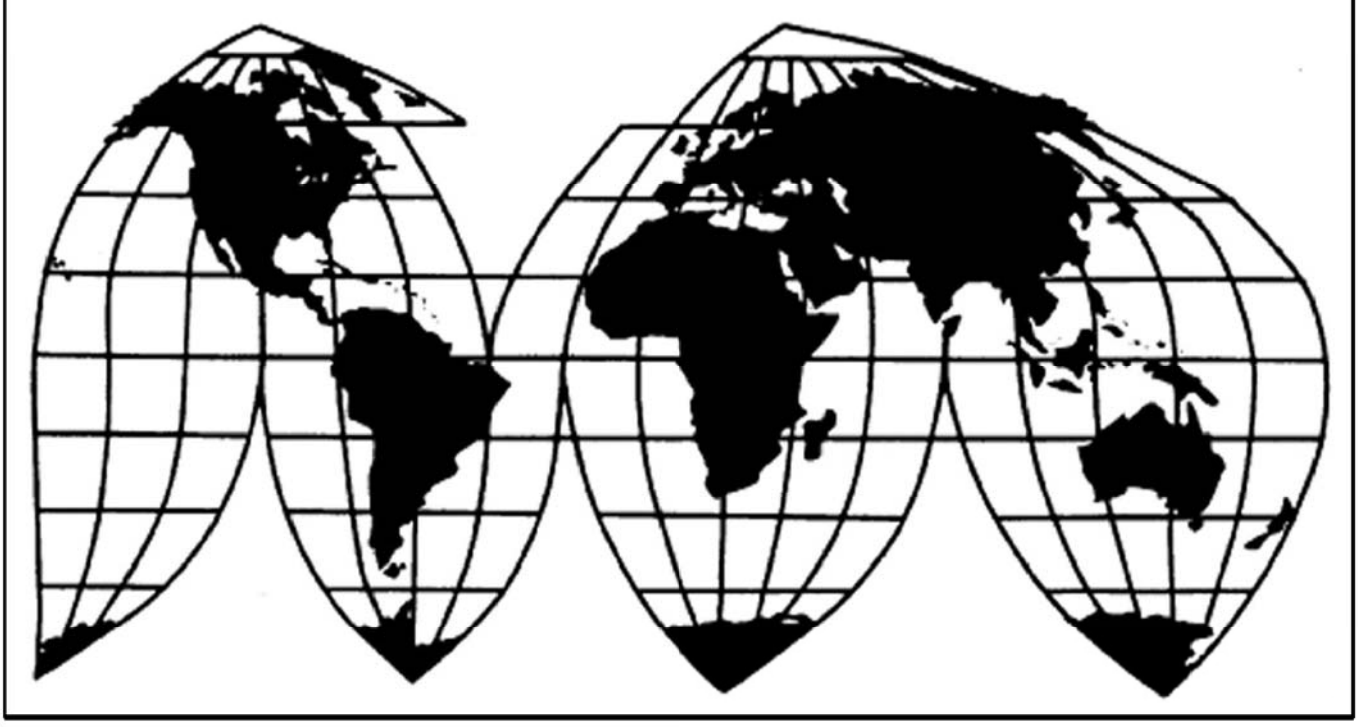
# Stainless Steel Flanges from China and India

Investigation Nos. 701-TA-585-586 and 731-TA-1383-1384 (Preliminary)

**Publication 4734** **October 2017**

**U.S. International Trade Commission**



**Washington, DC 20436**

# U.S. International Trade Commission

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**Appendixes**



Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted.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

**UNITED STATES INTERNATIONAL TRADE COMMISSION**

Investigation Nos. 701-TA-585-586 and 731-TA-1383-1384 (Preliminary)
Stainless Steel Flanges from China and 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 stainless steel flanges from China and India, provided for in subheadings 7307.21.10 and 7307.21.50 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 governments of China and India.

## COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

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

**BACKGROUND**

On August 16, 2017, Core Pipe Products, Inc., Carol Stream, Illinois and Maass Flange Corporation, Houston, Texas 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 LTFV and subsidized imports of stainless steel flanges from China and India. Accordingly, effective August 16, 2017, the Commission, pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)), instituted countervailing duty investigation Nos. 701-TA-585-586 and antidumping duty investigation Nos. 731-TA-1383-1384 (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 August 22, 2017 (82 FR 39914). The conference was held in Washington, DC, on September 6, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

## Views of the Commission

Based on the record in the preliminary phase of 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 stainless steel flanges from China and India that are allegedly sold in the United States at less than fair value and that are allegedly subsidized by the governments of China and 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

The Coalition of American Flange Producers ("Coalition") filed the petitions in these investigations on August 16, 2017, on behalf of itself and its individual members, Maass Flange Corporation ("Maass"), an integrated producer of stainless steel flanges, and Core Pipe Products, Inc. ("Core"), a finisher of stainless steel flanges (collectively "petitioners"). Petitioners appeared at the staff conference and submitted a postconference brief. No respondents appeared at the staff conference or filed written submissions.

U.S. industry data are based on the questionnaire responses of three firms, accounting for *** percent of integrated U.S. production of stainless steel flanges in 2016 and a majority of U.S. production by finishers of stainless steel flanges during 2016.[3] U.S. import data are based

[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] Confidential Report ("CR") at I-5; Public Report ("PR") at I-4. The confidential report, memorandum INV-PP-127 (September 25, 2017), was revised in accordance with memorandum INV-PP-132 (September 28, 2017). A number of U.S. producers and importers reported an inability to complete the questionnaires in time to be considered by the Commission in the preliminary phase because of flooding in the Houston area caused by Hurricane Harvey during the last week of August 2017. CR at I-5 (Continued…)

on official Commerce import statistics, and usable questionnaire responses from 12 U.S. importers, accounting for *** percent of subject imports from China and for *** percent of subject imports from India in 2016.[4] The Commission received responses to its questionnaires from one producer and one exporter of subject merchandise from China; their combined exports accounted for less than *** percent of U.S. imports of stainless steel flanges from China from January 2014 through June 2017.[5] The Commission received responses to its questionnaires from seven producers and exporters of subject merchandise from India; their combined exports accounted for essentially all of U.S. imports of stainless steel flanges from India from January 2014 through June 2017.[6]

## III. Domestic Like Product

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

The decision regarding the appropriate domestic like product(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.[10] No single factor is

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(…Continued)
n.9; PR at I-4 n.9. As a result, U.S. industry data are based on responses of one integrated producer and two stand-alone finishers. In any final phase of these investigations, we will seek complete information from firms that did not or could not respond during the preliminary phase of the investigations.

[4] CR/PR at IV-1.

[5] CR/PR at VII-3. The Chinese producer estimates that its production of stainless steel flanges in China accounts for approximately *** percent of the overall production of that product in China. *Id.*

[6] CR at VII-10; PR at VII-10. The seven responding Indian producers' production is believed to account for a sizable portion of total production of stainless steel flanges since 2014. *Id.*

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

[10] *See*, *e.g.*, *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (Continued…)

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

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(…Continued)
(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).

In a semi-finished products analysis, the Commission examines the following: (1) the significance and extent of the processes used to transform the upstream into the downstream articles; (2) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) whether there are perceived to be separate markets for the upstream and downstream articles; and (5) differences in the costs or value of the vertically differentiated articles. *See*, *e.g.*, *Glycine from India*, *Japan*, *and Korea*, Inv. Nos. 731-TA-1111-1113 (Preliminary), USITC Pub. 3921 at 7 (May 2007); *Artists' Canvas from China*, Inv. No. 731-TA-1091 (Final), USITC Pub. 3853 at 6 (May 2006); *Live Swine from Canada*, Inv. No. 731-TA-1076 (Final), US1TC Pub. 3766 at 8 n.40 (Apr. 2005); *Certain Frozen Fish Fillets from Vietnam*, Inv. No. 731-TA-1012 (Preliminary), USITC Pub. 3533 at 7 (Aug. 2002).

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

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

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

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

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

## A. Scope Definition

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

> {C}ertain forged stainless steel flanges, whether unfinished, semifinished, or finished (certain forged stainless steel flanges). Certain forged stainless steel flanges are generally manufactured to, but not limited to, the material specification of ASTM/ASME A/SA182 or comparable domestic or foreign specifications. Certain forged stainless steel flanges are made in various grades such as, but not limited to, 304, 304L, 316, and 316L (or combinations thereof). The term ''stainless steel'' used in this scope refers to an alloy steel containing, by actual weight, 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements.
>
> Unfinished stainless steel flanges possess the approximate shape of finished stainless steel flanges and have not yet been machined to final specification after the initial forging or like operations. These machining processes may include, but are not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing.
>
> Semi-finished stainless steel flanges are unfinished stainless steel flanges that have undergone some machining processes.
>
> The scope includes six general types of flanges. They are: (1) weld neck, generally used in butt-weld line connection; (2) threaded, generally used for threaded line connections; (3) slip-on, generally used to slide over pipe; (4) lap joint, generally used with stub-ends/butt-weld line connections; (5) socket weld, generally used to fit pipe into a machine recession; and (6) blind, generally used to seal off a line. The sizes and descriptions of the flanges within the scope include all pressure classes of ASME B16.5 and range from one-half inch to twenty-four inches nominal pipe size. Specifically excluded from the scope of these orders are cast stainless steel flanges. Cast stainless steel flanges generally are manufactured to specification ASTM A351.
>
> The country of origin for certain forged stainless steel flanges, whether unfinished, semi-finished, or finished is the country where the flange was forged. Subject merchandise includes stainless steel flanges as defined above that have been further

> processed in a third country. The processing includes, but is not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing, and/or any other processing that would not otherwise remove the merchandise from the scope of the investigations if performed in the country of manufacture of the stainless steel flanges.
>
> Merchandise subject to the investigations is typically imported under headings 7307.21.1000 and 7307.21.5000 of the Harmonized Tariff Schedule of the United States (HTSUS). While HTSUS subheadings and ASTM specifications are provided for convenience and customs purposes, the written description of the scope is dispositive.[16]

Stainless steel flanges are used to connect stainless steel pipe sections and piping components to form a piping system. The stainless steel flanges described by the scope definition are forged and can be finished, semi-finished, or unfinished (forgings). Such stainless steel flanges are generally manufactured to the material specification of American Society of Testing and Materials ("ASTM") A182/A182M or comparable domestic or foreign specifications, and they are made in various grades of stainless steel. They meet the sizes and description standards for all pressure classes of American Society of Mechanical Engineers ("ASME") B16.5 specification and range in size from one-half to 24 inches in nominal pipe size.

There are six general types of configurations of stainless steel flanges covered by the scope: weld-neck, slip-on, socket-weld, lap-joint, threaded, and blind. In general, pipes and flanges made from stainless steel are highly durable, but more expensive than pipes and flanges made of regular carbon steel. Stainless steel products are used in highly corrosive or demanding applications in which regular carbon steel would be unsuitable.[17]

The manufacturing process for stainless steel flanges involves three main steps: forging, heat treatment, and finishing. Integrated manufacturers perform all of these steps to produce a finished stainless steel flange from stainless steel billets or bars. Converters or non-integrated producers typically purchase forgings or semi-finished flanges and perform finishing steps to produce finished flanges.[18]

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[16] *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Less-Than-Fair-Value investigations*, 82 Fed. Reg. 42654 (Dep't of Comm. Sept. 11, 2017).

[17] CR at I-16 – I-25; PR at I-14 – I-19. For example, stainless steel flanges are used in oil and gas refineries, nuclear power plants, chemical synthesis plants, paper mills, food processing facilities, and other applications where corrosion resistance, cleanliness, pressure containment, or the capability to withstand high or extremely low temperatures are required. CR at I-22; PR at I-16 – I-17.

[18] CR at I-22 – I-23; PR at I-17 – I-19.

### B. Arguments of the Parties

Petitioners argue that the Commission should define a single domestic like product, coextensive with the scope of these investigations, consisting of finished and unfinished flanges.[19] They also contend that the Commission should not define the domestic like product broader than the scope to include flanges that are less than a half inch or more than 24 inches nominal pipe size.[20]

### C. Analysis

Based on the record in the preliminary phase of these investigations, we define a single domestic like product consisting of stainless steel flanges, both finished and unfinished, coextensive with Commerce's scope. We have applied the semi-finished product analysis to determine whether flange forgings and finished flanges are appropriately included in a single domestic like product definition.

*Extent of Processes Used to Transform Upstream Product into Downstream Product*. Stainless steel forgings are made from stainless steel billet or bar that is cut to size according to the input weight and length requirements of the subsequent flange. The forging process begins when the billet or bar is heated and then moved to an electro-hydraulic forging hammer which "forges" it into a shape that imparts the general dimensions of the finished flange. The forged material is then conveyed to a trim press where it receives its final shaping by trimming off the excess material. Once forged, the part is sent for post-forging heat treatment, which is required for certain flanges to impart specified mechanical properties or grain structure. Once cooled, the forgings are ready to be transformed into finished stainless steel flanges, a process which involves further machining, drilling, deburring, and marking.[21] Two U.S. producers

[19] Petitioners' Postconference Brief at 1 & Exhibit 1 at 8-11.

[20] Applying the traditional domestic like product factors, petitioners argue that there is a bright line dividing stainless steel flanges that are within the size range contained in the scope, larger than half inch and less than 24 inches nominal pipe size, and those that are smaller or larger than that range. According to petitioners, although all flanges are used to connect pipe sections and piping components, stainless steel flanges that are within the scope's size range are produced to ASTM and ASME standards and those outside the scope's size range are nonstandard and based on customer-specific specifications. Therefore, the smaller and larger stainless steel flanges have distinct end uses from, and are not interchangeable with, those in the scope that meet the standard specifications. According to petitioners, because stainless steel flanges in sizes outside of the range in the scope are nonstandard and manufactured to meet particular specifications, they have different channels of distribution. They further contend that the manufacturing facilities, production processes, and production employees are different for the nonstandard sized stainless steel flanges. Finally, petitioners contend that, because nonstandard sized stainless steel flanges are custom made to unique customer specifications, they are priced differently than stainless steel flanges in the scope. Petitioners' Postconference Brief at 1 & Exhibit 1 at 2-7.

[21] CR at I-22 – I-25; PR at I-17 – I-19.

indicated that the complexity of the finishing process was relatively low while one indicated it was relatively high.[22]

*Dedication for Use*. Unfinished flanges are dedicated to the production of finished flanges, have the approximate shape or outline of a finished flange, and undergo final machining, drilling, deburring of bolt holes (if needed), and marking to become a finished flange.[23] Unfinished stainless steel flange forgings are dedicated for use in the production of finished stainless steel flanges.[24]

*Differences in Physical Characteristics and Functions of the Upstream and Downstream Articles*. Petitioners claim that both unfinished and finished flanges share the same essential physical characteristics in that they have the same chemical composition and general size and shape; a finished flange is simply an unfinished flange that has been further machined and marked.[25] The two most essential characteristics of the finished product -- metallurgy and shape, which largely determine the resulting mechanical qualities -- are present in both the unfinished and finished flanges. As described above in section III.A., subject stainless steel flanges are generally manufactured to the material specification of ASTM A182/A182M or comparable domestic or foreign specifications and meet the sizes and description standards for all pressure classes of ASME B16.5. The forging process imparts the general characterizations and dimensions of finished flanges, while the finishing process involves further machining, drilling, deburring, and marking. Accordingly, both finished and unfinished stainless steel flanges share the same primary physical characteristics and ultimately serve the same function as components of a piping system, with unfinished flanges necessarily undergoing the further finishing to serve that function.[26]

*Separate Markets*. Petitioners contend that there are not separate markets for finished and unfinished flanges because there is no independent use for an unfinished flange other than to create a finished flange.[27] The record in the preliminary phase of these investigations indicates that finished stainless steel flanges are sold primarily to distributors as well as end users while unfinished flanges are sold primarily to firms for finishing operations.[28] Accordingly,

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[22] CR at I-30; PR at I-20; CR/PR at Table I-2.

[23] CR at I-25 – I-27; PR at I-19 – I-20. *See also* Petitioners' Postconference Brief, Exhibit 1 at 8-9 (citing *** U.S. Producer Questionnaire at II-3e; *** U.S. Producer Questionnaire at II-3e; *** U.S. Producer Questionnaire at II-3e; Conf. Tr. at 16 (Maass), 69 (Cook); ***; USITC Pub. 2724 at I-7; USITC Pub. 3827 at 4-5).

[24] CR at I-22 – I-24; PR at I-17 – I-19.

[25] Petitioners' Postconference Brief, Exhibit 1 at 10-11 (citing *** U.S. Producer Questionnaire at II-3e; *** U.S. Producer Questionnaire at II-3e; *** U.S. Producer Questionnaire at II-3e; Conf. Tr. at 16 (Maass), 69 (Cook); and ***; USITC Pub. 2724 at I-7).

[26] CR at I-16 – I-27; PR at I-13 – I-20.

[27] Petitioners' Postconference Brief, Exhibit 1 at 9-10 (citing Conf. Tr. at 61-62 (Maass); *** U.S. Producers Questionnaire at II-3; Petition, vol. 1 at 5; USITC Pub. 2724 at I-7).

[28] CR at I-29; PR at I-20.

while there is a market for the unfinished flanges, it is limited to finishers that purchase this intermediate product for the express purpose of conducting the finishing process. Unfinished flanges have no useful commercial application without transformation to the finished state. Therefore, there is no independent end-use market for unfinished flanges.

*Relative cost or value of the vertically differentiated articles*. The record in the preliminary phase of these investigations is mixed in terms of the cost or value of unfinished stainless steel flanges relative to the total cost of finished stainless steel flanges. According to ***.[29] However, based on questionnaire data, the value added by finishing stainless steel flanges appears significant.[30] For example, the average unit net sales value for finishing operations only was $*** in 2016. The primary raw material for finishing operations is unfinished flanges and the average unit raw material cost for finishing operations was $*** in 2016; thus, the value added by finishing that year would appear to be over *** percent of the total average unit sales value for finished flanges by finishers only.[31]

*Conclusion*. Based on the foregoing discussion, and in particular the facts that the unfinished flange imparts essential characteristics to the finished flange and is dedicated to use as a finished flange, and there is no independent end-use market for unfinished flanges, we define a single domestic like product consisting of stainless steel flanges, both finished and unfinished, coextensive with Commerce's scope.[32]

## 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."[33] In defining the domestic

[29] Petitioners' Postconference Br., Exhibit 1 at 11.

[30] CR/PR at Tables III-11 & III-12.

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

[32] As described above, petitioners also argue that the Commission should not define the domestic like product to include stainless steel flanges smaller than half inch and larger than 24 inches nominal pipe size, which are excluded from the scope. There was no integrated production of such flanges in 2016 (CR/PR at Table III-7) and moderate finishing (CR/PR at Table III-8 – *** pounds in 2016). The limited information in the record, which is essentially that from the petitioners' brief summarized above, tends to corroborate the petitioners' view that there is a clear dividing line between the articles within the scope and flanges that are larger or smaller. In light of this and the lack of any contrary argument, we limit the domestic like product to articles with the dimensions stated in the scope. We observe that the Commission did not address this issue in its prior investigations of stainless steel flanges, which involved scopes that did not contain the dimensional limitations present here. *See, e.g., Stainless Steel Flanges from India and Taiwan*, Inv. Nos. 731-TA-639-640 (Final), USITC Pub. 2724 at I-7 (Feb. 1994). We intend to explore this issue further in any final phase of these investigations and invite parties to offer input on this issue in their comments on the draft final phase questionnaires.

[33] 19 U.S.C. § 1677(4)(A).

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.

These investigations raise two sets of domestic industry issues. The first concerns what processing activities are sufficient to constitute domestic production. The second concerns whether appropriate circumstances exist to exclude any domestic producers from the domestic industry pursuant to the related parties provision.

Petitioners contend that the Commission should define the domestic industry to include only integrated producers of stainless steel flanges, *i.e.*, producers that forge and finish stainless steel flanges, and that the Commission should not include finishers in the domestic industry.[34] According to petitioners, finishers do not engage in sufficient domestic production-related activities to be considered part of the domestic industry.[35] Finally, although petitioners do not argue that any domestic producer should be excluded from the domestic industry on the basis of the related parties provision, they note that ***.[36]

### A. Sufficient Production-Related Activities

In deciding whether a firm qualifies as a domestic producer of the domestic like product, the Commission generally analyzes the overall nature of a firm's U.S. production-related

[34] Petitioners' Postconference Br. at 3 & Exhibit 1 at 13-17. We observe that if the Commission were to adopt petitioners' proposed definition of the domestic industry, only Maass would qualify as a petitioner and Core and the Coalition would no longer have status as petitioners pursuant to 19 U.S.C. §§ 1671a(b)(1), 1673a(b)(1), 1677(9).

Petitioners also argue that, because the scope in these investigations specifies that the country of origin for a flange is the country in which the flange forging is made, any stainless steel flange that is finished in the United States from an imported unfinished flange or forging is an imported product and not a domestically produced flange for purposes of these investigations. Petitioners' Postconference Br., Exhibit 1 at 14. Petitioners are mistaken in this regard. The scope in these investigations includes both finished and unfinished stainless steel flanges. Under the statute, the Commission must define a domestic like product that corresponds to the articles subject to investigation. *See* 19 U.S.C. § 1677(10). Thus, the country of origin requirement for purposes of unfinished flanges in the scope does not control our definition of the domestic industry, which encompasses all U.S. entities that engage in sufficient production operations to produce the domestic like product. *See, e.g., Certain Iron Mechanical Transfer Drive Components from Canada and China,* Inv. Nos. 701-TA-550 and 731-TA-1304-1305, USITC Pub. 4652 (Final) (Dec. 2016).

[35] Petitioners' Postconference Br., Exhibit 1 at 15. Specifically, they contend that the capital investment, technical expertise, and employment necessary for forging operations is substantially greater than that for finishing operations, which can be completed in large part on one machine. They further contend that *** of unfinished forgings finished in the United States are imported and that converters often purchase semi-finished flanges, which involve even more minor processes for finishing. *Id.*

[36] Petitioners' Postconference Br., Exhibit 1 at 16-17.

activities, and production-related activity at minimum levels could be insufficient to constitute domestic production.[37]

*Source/Extent of Capital Investment.* The record in the preliminary phase of these investigations is mixed in terms of the extent of capital investment for finishing operations as opposed to forging operations. According to ***.[38] However, finisher *** reported the *** levels of capital expenditures by U.S. firms during the period of investigation.[39] In 2016, capital expenditures were $*** for integrated operations and $*** for finishing operations.[40]

*Technical Expertise.* The record is mixed in terms of the technical expertise required in converting an unfinished flange into a finished flange. Two U.S. producers indicated that the complexity of the finishing process was relatively low while one indicated it was relatively high.[41]

*Value Added*. The information in the record suggests that domestic producers' finishing operations add considerable value to the finished stainless steel flanges. Although ***,[42] on both a total value and unit value basis, the value added by finishing stainless steel flanges appears significant.[43] In 2016, value added (total conversion costs/total cost of goods sold

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[37] The Commission generally considers six factors: (1) source and extent of the firm's capital investment; (2) technical expertise involved in U.S. production activities; (3) value added to the product in the United States; (4) employment levels; (5) quantity and type of parts sourced in the United States; and (6) any other costs and activities in the United States directly leading to production of the like product. No single factor is determinative and the Commission may consider any other factors it deems relevant in light of the specific facts of any investigation. *Crystalline Silica Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Final), USITC Pub. 4360 at 12-13 (Nov. 2012).

[38] Petitioners' Postconference Br., Exhibit 1 at 11.

[39] During the period of investigation, *** reported $*** in capital expenditures in 2014, $*** in 2015, and $*** in 2016; it reported $*** in interim 2016 but *** in interim 2017. *** reported $*** in capital expenditures in 2014, $*** in 2015, and $*** in 2016; it reported *** in the interim periods. *** only reported $*** in capital expenditures in 2014. CR/PR at Table VI-8. *See also* CR at III-3; PR at III-2.

[40] CR at III-3; PR at III-2.

[41] CR at I-28; PR at I-20; CR/PR at Table I-2.

[42] Petitioners' Postconference Br., Exhibit 1 at 11.

[43] The total value for the U.S. producers' U.S. shipments by non-integrated finishing operations were $*** in 2014, $*** in 2015, and $*** in 2016; the total value was $*** in interim 2016 and $*** in interim 2017. CR/PR at Table III-11. The total value added to imported unfinished forgings by non-integrated finishing operations was $*** in 2014, $*** in 2015, and $*** in 2016; the value added was $*** in interim 2016 and $*** in interim 2017. CR/PR at Table III-12. The average unit net sales value for finishing operations only was $*** in 2014, $*** in 2015, and $*** in 2016; it was $*** in interim 2016 and $*** in interim 2017. CR/PR at Table VI-7. The primary raw material for finishing operations is unfinished flanges, and the average unit raw material cost for finishing operations was $*** in 2014, $*** in 2015, and $*** in 2016; it was $*** in interim 2016 and $*** in interim 2017. CR at VI-12; PR at VI-3; CR/PR at Table VI-7.

("COGS")) to the product in the United States was *** percent for integrated operations and *** percent for finishing operations.[44]

*Employment Levels*. Questionnaire data indicate that integrated U.S. producers employed more production related employees ("PRWs") than U.S. producers' nonintegrated finishing operations.[45]

*Quantity/Types of Parts Sourced in the United States*. The record in the preliminary phase of these investigations indicates that domestic production of unfinished stainless steel flanges (*i.e.*, forgings) for sale on the U.S. commercial market is limited, and finishers rely primarily on subject imports for their supply.[46] Maass, the only integrated producer for which the Commission received data, ships relatively *** amounts of unfinished stainless steel flanges to the U.S. market,[47] and finishers Core and Kerkau reported using *** in their finishing operations.[48] In 2016, the finished flanges produced from domestic flange forgings or semi-finished flanges was *** pounds for integrated production operations and *** pounds for finishing operations.[49]

*Conclusion.* On balance, we find that U.S. firms that finish stainless steel flanges conduct sufficient production-related activities to be included in the domestic industry with integrated U.S. producers. Although the record is mixed in terms of technical expertise and capital investment, the information available in the preliminary phase of these investigations indicates that significant value is added in the finishing operations of U.S. firms.[50] While finishing operations appear to employ fewer PRWs than forging operations, the number of employees employed by non-integrated producers is not insubstantial. In addition, the record in the preliminary phase of these investigations indicates that there are few domestically

[44] CR at III-3; PR at III-2.

[45] The number of PRWs employed by integrated producer *** was *** in 2014, with *** dedicated to finishing only; *** in 2015, with *** dedicated to finishing only; and *** in 2016, with *** dedicated to finishing only. *** reported *** PRWs in interim 2016, with *** dedicated to finishing only, and it reported *** PRWs in interim 2017, with *** dedicated to finishing only. CR/PR at Table III-15; *** Questionnaire Response at Question V-5. PRWs associated with non-integrated finishing only operations, which includes those finishing only PRWs reported by *** above, were *** in 2014, *** in 2015, and *** in 2016; they were *** in interim 2016 and *** in interim 2017. CR/PR at Table III-16. *See also* CR at III-3; PR at III-2.

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

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

[48] *** Domestic Producer Questionnaire Response at Question V-6 (reporting that the most significant sources of unfinished flanges used in its finishing operations were subject imports); *** Domestic Producer Questionnaire Response at Question V-6 (reporting that it relied exclusively on subject imports in its finishing operations).

[49] CR at III-3; PR at III-2.

[50] As we noted above, the data in this preliminary phase of the investigations are based on only one integrated producer and two non-integrated producers. In any final phase of these investigations, we will seek to obtain additional questionnaire responses from other U.S. producers.

produced unfinished flanges commercially available to finishers for their finishing operations, and thus finishers rely primarily on subject imports. Accordingly, for purposes of the preliminary phase of these investigations, we define the domestic industry to be all producers of stainless steel flanges, including integrated domestic producers as well as non-integrated domestic producers that engage in finishing operations only.[51]

### B. Related Parties

The Commission also must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[52] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[53]

Each of the three responding domestic producers have imported subject merchandise and thus is a related party.[54] We have considered whether appropriate circumstances exist to exclude each from the domestic industry.

*Core.* Core is a U.S. finisher that ***.[55] Core also imports ***.[56] In addition, Core reports that it ***.[57] Core is a petitioner in these investigations.[58] Core accounted for ***

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[51] This is consistent with the Commission's prior determinations on stainless steel flanges, which included finishers in the domestic industry. *Stainless Steel Flanges from India and Taiwan*, Inv. Nos. 731-TA-639-640 (Final), USITC Pub. 2724 at I-8 (Feb. 1994); *Forged Stainless Steel Flanges from India and Taiwan*, Inv. Nos. 731-TA-639-640 (Review), USITC Pub. 3329 at 8 (July 2000); *Forged Stainless Steel Flanges from India and Taiwan*, Inv. Nos. 731-TA-639-640 (Second Review), USITC Pub. 3827 at 5 (Dec. 2005).

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

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

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

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

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

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

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

[54] CR at III-16; PR at III-6; CR/PR at Table III-14.

percent of reported non-integrated finishing operations in the United States in 2016.[59] Although Core's financial performance during the period of investigation was *** than that of the integrated domestic producer, it operated ***.[60]

We find that appropriate circumstances do not exist to exclude Core from the domestic industry as a related party. While Core's subject imports of unfinished flanges as a share of its domestic production of finished flanges was *** percent in 2016,[61] its imports appear to be necessary due to the *** amount of domestically produced finished flanges available in the U.S. market.[62] Core imports ***), indicating that its primary interest is in domestic production of finished flanges. Moreover, Core is a petitioner in these proceedings and supports all the petitions.

*Kerkau.* Kerkau is a U.S. finisher that *** and ***.[63] Kerkau *** regarding the petitions and accounted for *** percent of reported non-integrated finishing operations in the United States in 2016.[64] Kerkau's financial performance during the period of investigation was *** than that of other domestic producers.[65] During the period of investigation, Kerkau reported

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(…Continued)

[55] Core Domestic Producer Questionnaire Response at Question V-6.

[56] Core Importer Questionnaire Response at Questions II-5b & II-5c. *** imported *** pounds of subject finished flanges and *** pounds of subject unfinished flanges in 2014, *** pounds of subject finished flanges and *** pounds of subject unfinished flanges in 2015, and *** pounds of subject finished flanges and *** pounds of subject unfinished flanges in 2016. Calculated from *id.*

[57] CR/PR at Table III-2.

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

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

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

[61] CR/PR at Table III-14. We recognize that this number may overstate the share of imports to finished flanges because finishing operations remove some material from the unfinished flange, which results in lower weight. CR at III-16; PR at III-6; *** Importer Questionnaire Response at Question at II-16(a).

[62] Based on the record of the preliminary phase of these investigations, there is a limited volume of domestically produced unfinished flanges that are commercially available. However, these data are based upon information from only one domestic integrated producer. In any final phase of these investigations, we intend to explore further the commercial market for domestically produced unfinished and semi-finished flanges as well as nonsubject imports of unfinished and semi-finished stainless steel flanges and their respective availability for domestic finishing operations. We also intend to explore further to what extent U.S. finishers are benefiting from their use of subject imports as opposed to unfinished stainless steel flanges from domestic or nonsubject sources.

[63] Kerkau Domestic Producer Questionnaire Response at Question V-6; Kerkau Importer Questionnaire Response at Questions II-5b & II-5c.

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

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

the *** level of capital expenditures for any domestic producer in connection with its finishing operations.[66]

On balance, we find that appropriate circumstances do not exist to exclude Kerkau from the domestic industry for purposes of the preliminary phase of these investigations. We recognize that Kerkau's *** as a share of its domestic production of finished flanges was *** percent in 2016.[67] As described above, the record suggests there are only relatively *** volumes of domestically produced unfinished stainless steel flanges commercially available in the U.S. market.[68] Moreover, Kerkau invested *** in its finishing operations. Kerkau imports ***, indicating that its primary interest lays in its domestic production of finished flanges.

*Maass.* Maass is a U.S. integrated producer that ***.[69] Its *** were *** percent of its domestic forged production that year.[70] Maass is a petitioner.[71] Maass accounted for *** percent of reported integrated production in the United States in 2016 and *** percent of non-integrated finishing operations in the United States in 2016.[72] Maass reported $*** in capital expenditures in 2014, $*** in 2015, and $*** in 2016, but it reported *** in the interim periods.[73] Thus, the record indicates that Maass' principal interest is in domestic production, and we find that appropriate circumstances do not exist to exclude it from the domestic industry.

Based on our domestic like product definition, we define the domestic industry to include all domestic producers that manufacture finished stainless steel flanges, including those entities that engage solely in finishing operations.

## 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

[66] It reported $*** in 2014, $*** in 2015, and $*** in 2016; it reported $*** in interim 2016 but *** in interim 2017. CR/PR at Table VI-8.

[67] CR/PR at Table III-14. As discussed above, this number may overstate the share of subject imports to finished flanges because finishing operations remove some material from the unfinished flange, which results in lower weight. CR at III-16; PR at III-6; Kerkau's Importer Questionnaire Response at Question at II-16(a).

[68] As noted above, we intend to explore further in any final phase of these investigations the commercial availability of domestically produced unfinished flanges and nonsubject imports of unfinished and semi-finished stainless steel flanges as well as whether and to what extent finishers are benefiting from their use of subject imports of unfinished stainless steel flanges.

[69] Maass' Domestic Producer Questionnaire Response at Question V-6.

[70] CR/PR at Table III-14.

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

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

[73] CR/PR at Table VI-8.

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.[74]

In the 12 month period preceding the filing of the petition, subject imports from China accounted for 14.9 percent of total imports of stainless steel flanges by quantity and subject imports from India accounted for 45.9 percent of total imports of stainless steel flanges by quantity.[75] Because these figures are above the statutory negligibility thresholds, we find that imports from each subject source are not negligible.

## VI. Cumulation

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

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

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

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

(4) whether the subject imports are simultaneously present in the market.[76]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for

[74] 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

[75] CR at IV-13; PR at IV-6.

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

determining whether the subject imports compete with each other and with the domestic like product.[77] Only a "reasonable overlap" of competition is required.[78]

Petitioners argue that the Commission should cumulate subject imports from China and India.[79] They contend that subject imports are fungible with one another and the domestic like product, compete in the same geographic markets, are sold through the same channels of distribution, and were simultaneously present in the U.S. market in each month of the period of investigation.[80]

We find for purposes of the preliminary phase of these investigations that the statutory criteria for cumulation are satisfied. As an initial matter, petitioners filed the antidumping and countervailing duty petitions with respect to both countries on the same day, August 16, 2017.[81] The record also supports finding a reasonable overlap of competition among stainless steel flanges produced in China, India, and the United States, as indicated below.

*Fungibility*. The majority of U.S. producers and importers reported stainless steel flanges from all three sources to be always or frequently interchangeable.[82] Finished flanges constituted the majority of domestic producers' U.S. shipments and imports from each subject country.[83] Shipments were reported throughout the period of investigation for each of the three pricing products for the domestically produced product and subject imports from China and India.[84]

*Channels of Distribution*. During the period of investigation, U.S. producers and importers of subject merchandise from China and India sold the vast majority of stainless steel flanges to distributors.[85]

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

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

[79] Petitioners' Postconference Br. at 3 & Exhibit 1 at 21-26.

[80] Petitioners' Postconference Br., Exhibit 1 at 21-26.

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

[82] CR at II-13; PR at II-9; CR/PR at Table II-4.

[83] CR/PR at Table IV-6.

[84] CR/PR at Tables V-3 – V-5.

[85] CR/PR at II-1 & Table II-1.

*Geographic Overlap*. U.S. producers and importers of subject stainless steel flanges from China and India reported selling stainless steel flanges in all geographic market areas in the United States.[86]

*Simultaneous Presence in Market*. The record data indicate that subject imports from China and India were present during every month of the period of investigation.[87] The domestic like product was also present in the U.S. market throughout the period.[88]

*Conclusion*. The record in the preliminary phase of these investigations supports a finding that subject imports from each subject country are fungible with the domestic like product and each other, that subject imports from each subject country and the domestic like product are sold in similar channels of distribution and in similar geographic markets, and have been simultaneously present in the U.S. market. In light of the foregoing, we find that there is a reasonable overlap of competition between the domestic like product and subject imports and among imports from each subject country. Accordingly, we cumulate subject imports from China and India for purposes of our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

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

### A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[89] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.[90] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[91] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant

[86] CR at II-2; PR at II-1; CR/PR at Table II-2.

[87] CR/PR at Table IV-7.

[88] *See* CR/PR at Tables V-3 – V-5.

[89] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[90] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[91] 19 U.S.C. § 1677(7)(A).

economic factors that bear on the state of the industry in the United States.[92] 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."[93]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[94] 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.[95] 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.[96]

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.[97] In performing its examination, however, the Commission need not isolate

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[92] 19 U.S.C. § 1677(7)(C)(iii).

[93] 19 U.S.C. § 1677(7)(C)(iii).

[94] 19 U.S.C. §§ 1671b(a), 1673b(a).

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

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

[97] SAA, H.R. Rep. 103-316, Vol. I at 851-52 (1994) ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence (Continued…)

the injury caused by other factors from injury caused by unfairly traded imports.[98] 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.[99] It is clear that the existence of injury caused by other factors does not compel a negative determination.[100]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports" and the Commission "ensure{s} that it is not attributing injury from other sources to the subject imports."[101] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[102]

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(…Continued)
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.

[98] 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.").

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

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

[101] *Mittal Steel*, 542 F.3d at 877-78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its (Continued…)

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[103] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

*Mittal Steel* clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record 'to show that the harm occurred 'by reason of' the LTFV imports,'" and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[104] Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

The progression of *Gerald Metals*, *Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.[105]

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(…Continued)
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*.

[102] *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.").

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

[104] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission's alternative interpretation of *Bratsk* as a reminder to conduct a non-attribution analysis).

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

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.[106] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[107]

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

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

#### 1. Demand Conditions

Demand for stainless steel flanges in the U.S. market depends on demand for U.S.-produced downstream products. Reported end uses include piping systems in power plants, refineries, chemical and petrochemical plants, pulp and paper facilities, and commercial construction.[108]

Demand, as measured by apparent U.S. consumption, fell *** percent from 2014 to 2016, but was essentially flat between the interim periods. Apparent U.S. consumption was *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017.[109]

Most firms responding to the Commission's questionnaires reported a decrease in U.S. demand for stainless steel flanges since January 1, 2014. All responding U.S. producers reported that demand for stainless steel flanges has declined in the United States and other markets in both the oil and gas sector and other sectors. The majority of importers also reported a decline in demand for stainless steel flanges in the oil and gas sectors in the United States and other markets, but importers' responses were mixed with respect to demand in sectors other than oil and gas.[110]

#### 2. Supply Conditions

Cumulated subject imports were the largest source of supply to the United States during the period of investigation. The market share of cumulated subject imports by quantity was *** percent in 2014, *** percent in 2015, and *** percent in 2016; it was *** percent in

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

[107] *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.").

[108] CR at II-9; PR at II-6.

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

[110] CR at II-10; PR at II-7; CR/PR at Table II-3.

interim 2016 and *** percent in interim 2017.[111] In 2016, a major Indian producer of stainless steel flanges, Viraj Profiles Limited ("Viraj"), was found to have misappropriated the trade secrets of Valbruna Slater Stainless, Inc. and was the subject of a limited exclusion order issued by the Commission on stainless steel products, including flanges, under section 337 of the Tariff Act of 1930.[112] Petitioners assert that, as a result of the July 26, 2016 exclusion order, Viraj retreated from the market and subject imports from India decreased that year. The record indicates that subject imports from India indeed declined in 2016, but subsequently increased and were higher in interim 2017 than in interim 2016.[113]

Nonsubject imports were the second largest source of supply during the period of investigation. By quantity, the share of the U.S. market held by nonsubject imports was *** percent in 2014, *** percent in 2015, and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017.[114] The largest sources of nonsubject imports during January 2014 through June 2017 were Canada, Germany, Japan, the Philippines, Italy, and Mexico; combined, these countries accounted for 81 percent of nonsubject imports in 2016.[115]

The domestic industry was the smallest source of supply of stainless steel flanges to the U.S. market. The domestic industry's market share by quantity fell from *** percent in 2014 to *** percent in 2015 and increased to *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017.[116] For the integrated producer, production capacity fell from *** pounds in 2014 to *** pounds in 2015 then increased to *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017.[117] For non-integrated producers, production capacity initially increased from *** pounds in 2014 to *** pounds in 2015 then slightly decreased to *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017.[118] Two domestic producers reported producing products other than stainless steel flanges on the same equipment and machinery used to make stainless steel flanges. Stainless steel flanges accounted for *** percent of production on forging machinery and *** percent of finishing machinery during the period of investigation.[119]

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[111] CR/PR at Table IV-12.

[112] CR at I-9; PR at I-7. *See also Certain Stainless Steel Products*, 81 Fed. Reg. 35088 (June 1, 2016) (issuing exclusion order against Viraj in Inv. No. 337-TA-933).

[113] CR/PR at Table IV-2. Petitioners claim that the subsequent increase in subject imports from India following the exclusion order occurred because Viraj appears to be shipping through its related Indian producer, Bebitz Flange Works Private Limited, and other unrelated producers have moved quickly to fill any gaps caused by Viraj's exit from the market. Petitioners' Postconference Br. at 8-9 & Exhibit 1 at 27-31. *See also* CR/PR at Table IV-7.

[114] CR/PR at Table IV-12.

[115] CR at II-9; PR at II-6.

[116] CR/PR at Table IV-12.

[117] CR/PR at III-4.

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

[119] CR at III-9 – III-10; PR at III-4.

### 3. Substitutability and Other Conditions

Based on the record in the preliminary phase of these investigations, there appears to be a high degree of substitutability between domestically produced stainless steel flanges and stainless steel flanges imported from subject sources.[120] As discussed above, the majority of U.S. producers and importers reported that stainless steel flanges from all three sources were always or frequently interchangeable.[121] The record suggests that being on approved manufacturer lists ("AMLs") does not substantially affect the substitutability of stainless steel flanges. The majority of U.S. producers reported that, while most of their sales of stainless steel flanges were to customers who had AMLs, stainless steel flanges from suppliers on an AML are always interchangeable with stainless steel flanges from suppliers that are not on the AML.[122] Petitioners assert that AMLs have little impact on the U.S. market for several reasons, alleging that most sales are not subject to AMLs, that importers and finishers that rely on subject imports are on AMLs along with integrated domestic producers, and that purchasers will purchase products from unapproved suppliers if the price is low enough or if stainless steel flanges from approved manufacturers are not available.[123] While responses from importers were mixed, a majority reported that stainless steel flanges from suppliers on an AML are always or usually interchangeable with stainless steel flanges from suppliers that are not on the list.[124]

The record further indicates that price is an important factor in purchasing decisions. All U.S. producers and all but one importer reported that factors other than price are never or only sometimes significant in sales of stainless steel flanges.[125] Purchasers responding to lost sales and lost revenues allegations were asked to identify the main factors their firm considered in their purchasing decisions for stainless steel flanges; the major purchasing factors they identified were price, quality, and delivery.[126]

Domestic producers and importers reported selling the vast majority of their stainless steel flanges on the spot market. In 2016, *** percent of commercial shipments reported by domestic producers were spot sales, and importers reported that *** percent of their commercial sales were spot sales.[127]

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[120] CR at II-13; PR at II-9.

[121] CR at II-13; PR at II-9; CR/PR at Table II-4.

[122] CR at II-12; PR at II-9.

[123] Conf. Tr. at 12, 53 (Maass); CR at II-12 – II-13; PR at II-9.

[124] CR at II-13; PR at II-9.

[125] CR at II-12, II-14; PR at II-9 – II-10; CR/PR at Table II-5.

[126] CR at II-12; PR at II-9.

[127] CR at V-3; PR at V-2; CR/PR at Table V-2. *** did not provide shipment data, but it reported selling most of its stainless steel flanges on the spot market and some via contract sales. CR at V-3 – V-4; PR at V-2; CR/PR at Table V-2 n.1.

The raw material for producers that engage in forging or integrated production of stainless steel flanges is stainless steel billet or bar. The raw material for finishers is unfinished or semi-finished flanges. The prices for two types of stainless steel (304 and 316) that are commonly used to manufacture stainless steel flanges declined overall during the period of investigation after peaking in mid-2014.[128]

### 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."[129]

Cumulated subject imports maintained a large presence in the U.S. market during the period of investigation, notwithstanding declines in quantity from 2014 to 2016. The quantity of cumulated subject imports declined from 34.0 million pounds in 2014 to 30.5 million pounds in 2015 and 23.1 million pounds in 2016.[130] The quantity of cumulated subject imports was higher in interim 2017, at 13.3 million pounds, than in interim 2016, at 12.1 million pounds.[131] As discussed above, the decline in subject imports from 2015 to 2016 appear to correspond at least in part to the imposition of the exclusion order on subject producer Viraj in 2016.[132]

Throughout the period of investigation, cumulated subject imports accounted for the majority of apparent U.S. consumption. Cumulated subject import market share was *** percent in 2014, *** percent in 2015, and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017.[133] The higher subject import market share in interim 2017 compared to interim 2016 was partially at the expense of the domestic industry.[134]

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

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[128] CR/PR at V-1.

[129] 19 U.S.C. § 1677(7)(C)(i).

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

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

[132] Cumulated subject imports declined by 24.3 percent from 2015 to 2016, compared to the 10.3 percent decline from 2014 to 2015. CR/PR at Table C-1. We intend to explore the effect of the imposition of the exclusion order on Viraj in any final phase investigations.

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

[134] CR/PR at Table C-1. Between interim 2016 and interim 2017, the domestic industry lost *** percentage points. *Id.*

### 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
>
> (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.[135]

As explained above in section V.B.3., the record indicates that the domestic like product and subject are highly substitutable and that price is an important consideration in purchasing decisions.

The Commission collected quarterly pricing data from U.S. producers and importers for three stainless steel flange products.[136] Integrated producer Maass and 10 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[137] Pricing data reported by these firms accounted for approximately *** percent of the value of U.S. producers' shipments, *** percent of the value of U.S. shipments of subject imports from China, and *** percent of U.S. shipments of the value of subject imports from India in 2016.[138]

The pricing comparison data show predominantly underselling. Prices for the subject imports were below those for U.S.-produced product in 78 of 80 quarterly comparisons (97.5 percent of all comparisons) from January 2014 through June 2017.[139] The quantity of subject

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[135] 19 U.S.C. § 1677(7)(C)(ii).

[136] The three pricing products were as follows:

**Product 1**. – Weld-Neck stainless steel flanges, finished, 2-inch nominal pipe size, class 150, of 316/316L alloy steel meeting ASME/ANSI B16.5 specifications.

**Product 2** – Slip-On stainless steel flanges, finished, 4-inch nominal pipe size, class 150, of 304/304L alloy steel meeting ASME/ANSI B16.5 specification.

**Product 3** – Slip-On stainless steel flanges, finished, 6-inch nominal pipe size, class 150, of 304/304L alloy steel meeting ASME/ANSI B16.5 specifications.
CR at V-5; PR at V-3.

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

[138] CR at V-5; PR at V-3. We observe that the pricing product data coverage is low, particularly with respect to domestically produced stainless steel flanges. We invite parties to propose pricing products that may provide broader coverage in their comments on the draft questionnaires in any final phase of these investigations.

[139] CR at V-12; PR at V-5; CR/PR at Tables V-3 – V-7.

imports in quarters with underselling was 279,062 pieces, while the quantity in quarters with overselling totaled only *** pieces.[140] Margins of underselling ranged from 10.7 to 71.2 percent, while margins of overselling ranged from *** to *** percent.[141] Given the widespread underselling and the fact that market participants reported that price is an important consideration in purchasing decisions, we find the price underselling by subject imports to be significant.

These lower prices enabled subject imports to obtain substantial sales volume during the period of investigation. Three of the four purchasers responding to the lost sales allegations reported that they had purchased lower-priced subject imports from India instead of the domestic like product and that price was the primary reason for the decision to purchase subject imports rather than the domestic like product.[142] Of these three responding purchasers, two reported purchasing a combined total of *** pounds of subject imports rather than the domestic like product because of price since January 2014.[143] We find this volume of lost sales to be particularly significant, given that the total volume of U.S. shipments of the domestic like product from January 2014 through June 2017 was *** million pounds.[144]

We have also considered price trends during the period of investigation. Pricing data indicate that prices for the domestic like product and subject imports generally declined over the period of investigation.[145] Other market factors, however, including decreases in apparent U.S. consumption and decreases in raw material costs also may have contributed to price decreases observed for domestically produced products. As a result, we are unable to conclude on the basis of the record in the preliminary phase of these investigations that subject imports

[140] CR at V-12; PR at V-5; CR/PR at Table V-7.

[141] CR at V-12; PR at V-5; CR/PR at Table V-7.

[142] CR at V-15; PR at V-6; CR/PR at Tables V-9 – V-10. From 2014 to 2016, one purchaser reported that domestically produced product's share of its total purchases declined by *** percentage points while subject imports' share increased by *** percentage points, another purchaser reported that domestically produced product's share of its total purchases declined by *** percentage points while subject imports' share increased by *** percentage points, and the other reported that domestically produced product's share of its total purchases declined by *** percentage points while subject imports' share increased by *** percentage points. CR/PR at Table V-8.

[143] CR/PR at Table V-9. The third purchaser did not report a volume.

[144] CR/PR at Table C-1 note.

[145] CR at V-12; PR at V-4. Prices for domestically produced product 1 decreased by *** percent overall, prices for domestically produced product 2 decreased by *** percent overall, and prices for domestically produced product 3 decreased by *** percent overall. Prices for product 1 imported from China decreased by *** percent overall, prices for product 2 imported from China decreased by *** percent overall, and prices for product 3 imported from China decreased by *** percent overall. Prices for product 1 imported from India decreased by *** percent overall, prices for product 2 imported from India decreased by *** percent overall, and prices for product 3 imported from India decreased by *** percent overall. CR/PR at Table V-6.

depressed prices for the domestic like product to a significant degree.[146] [147] In any final phase of these investigations, we will further examine the role various factors played in price declines.

We have also considered whether cumulated subject imports prevented increases in prices of the domestic like product that otherwise would have occurred to a significant degree. During the period of investigation, the domestic industry's ratio of COGS to net sales declined from 2014 to 2016, although it was higher in interim 2017 than interim 2016.[148] From 2014 to 2016, apparent U.S. consumption and raw material costs both decreased overall, which would tend to make price increases unlikely. As a result, we do not find that subject imports prevented price increases that otherwise would have occurred to a significant degree.

On the basis of the record in the preliminary phase of these investigations, we find that significant price underselling by cumulated subject imports resulted in a substantial volume of lost sales by the domestic industry to subject importers. The low-priced subject imports consequently had significant adverse effects on the domestic industry, which are described further below.[149]

[146] Petitioners contend that average unit values ("AUVs") of subject imports were lower than the AUVs of the domestic like product and nonsubject imports and that the AUVs of subject imports caused the AUVs of the domestic like product and nonsubject imports to fall during the period of investigation. Petitioners' Postconference Br. at 17-19. In light of the wide range of sizes and types of stainless steel flanges, we find that comparisons of AUVs are of limited probative value because they may reflect differences and changes in product mix rather than differences and changes in price.

[147] In response to lost revenue allegations, one purchaser, *** stated that U.S. producers' price reductions may have been tied to lower input costs rather than an attempt to chase Indian or Chinese prices. CR at V-15; PR at V-6. We observe, however, that *** further indicated that any price reductions by the domestic industry to compete with subject imports would have been futile because the cost gap between the domestic like product and subject imports was too large. *Id.* This further supports our finding of significant underselling on this preliminary record.

[148] The domestic industry's ratio of COGS to net sales fell from *** percent in 2014 to *** percent in 2015 and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table VI-5.

[149] As we describe above, the record in the preliminary phase of these investigations indicate that there is a high degree of substitutability between the domestic like product and imports from subject sources. Notwithstanding this high degree of substitutability and the widespread underselling we have observed, domestically produced stainless steel flanges have maintained a presence in the market and their market share fluctuated in a relatively narrow band. We intend in any final phase of these investigations to further explore whether and to what extent non-price purchasing factors play a role in the U.S. market.

### E. Impact of the Subject Imports[150]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[151]

During the period of investigation, many of the domestic industry's performance indicia declined overall from 2014 to 2016 and some were lower in interim 2017 than in interim 2016. For both the integrated producer as well as the non-integrated producers, capacity and production fluctuated over the period of investigation, although trends were different for each group. For the integrated producer, capacity and production initially declined from 2014 to 2015 but then increased from 2015 to 2016; capacity was higher in 2016 than in 2014 but production was lower in 2016 than in 2014. Its production and capacity were both lower in interim 2017 than in interim 2016.[152] For non-integrated producers, capacity and production initially increased from 2014 to 2015 but then decreased from 2015 to 2016; capacity was higher in 2016 than in 2014 but production was lower in 2016 than in 2014. Their capacity was lower in interim 2017 than in interim 2016, but production was *** higher in interim 2017 than in interim 2016.[153] Capacity utilization, which was already low at the beginning of the period of investigation, fell *** for both integrated and non-integrated producers from 2014 to 2015 and

[150] In its notice initiating the antidumping duty investigation, Commerce estimated antidumping duty margins of 99.23 to 257.11 percent for imports from China, and 78.49 to 145.25 percent for imports from India. *Stainless Steel Flanges from India and the People's Republic of China: Initiation of Less-Than-Fair-Value Investigations*, 82 Fed. Reg. 42649, 42652 (Dep't of Comm. Sept. 11, 2017); CR at I-16 n.34; PR at I-13 n.34.

[151] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[152] For the integrated producer, capacity fell from *** pounds in 2014 to *** pounds in 2015, then increased to *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017. The integrated producer's production was *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017. CR/PR at III-4.

[153] For non-integrated producers, production capacity initially increased from *** pounds in 2014 to *** pounds in 2015 then *** decreased to *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017. The non-integrated producers' production was *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016; it was *** pounds in interim 2016 and *** pounds in interim 2017. CR/PR at Table III-5.

2016; it was *** higher in interim 2017 than in interim 2016 for non-integrated producers but lower for the integrated producer.[154]

Total U.S. shipments declined *** from 2014 to 2015 and continued to decline in 2016; they were lower in interim 2017 than in interim 2016.[155] The domestic industry's market share was low and fluctuated from year to year. Its market share was highest, at *** percent, in 2016, when cumulated subject imports' market share was at its lowest level (*** percent). The domestic industry's market share was lower in interim 2017 than in interim 2016, while the market share of cumulated subject imports was higher for the same comparison.[156] The domestic industry's inventories fluctuated but accounted for a substantial share of total U.S. shipments during the period of investigation.[157] The domestic industry's employment indicia generally declined from 2014 to 2016 but were higher in interim 2017 than in interim 2016, although productivity fluctuated during the period of investigation.[158]

Consistent with the price declines and reduced shipments, the domestic industry's total net sales values decreased substantially from 2014 to 2015 and 2016; net sales values were lower in interim 2017 than interim 2016.[159] Gross profits initially increased from 2014 to 2015

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[154] For the integrated producer, capacity utilization fell from *** percent in 2014 to *** percent in 2015 and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table III-4. For non-integrated producers, capacity utilization fell from *** percent in 2014 to *** percent in 2015 and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table III-5.

[155] U.S. shipments fell from *** pounds in 2014 to *** pounds in 2015 and *** pounds in 2016; they were *** pounds in interim 2016 and *** pounds in interim 2017. CR/PR at Table C-1 note.

[156] CR/PR at Table IV-12.

[157] The domestic industry's end-of-period inventories were *** pounds in 2014, *** pounds in 2015, and *** pounds in 2016; they were *** pounds in interim 2016 and *** pounds in interim 2017. CR/PR at Tables III-12 note & III-13. For the integrated producer, the ratio of inventories to U.S. shipments was *** percent in 2014, *** percent in 2015, and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table III-13. For non-integrated producers, the ratio of inventories to U.S. shipments was *** percent in 2014, *** percent in 2015, and *** percent in 2016; it was *** percent in interim 2016 and *** percent in interim 2017. CR/PR at Table III-13.

[158] The number of PRWs decreased from *** in 2014 to *** in 2015 and *** in 2016; the number of PRWs was *** in interim 2016 and *** in interim 2017. Total hours worked decreased from *** in 2014 to *** in 2015 and *** 2016; they were *** in interim 2016 and *** in interim 2017. Wages paid decreased from $*** in 2014 to $*** in 2015 and $*** in 2016; they were $*** in interim 2016 and interim 2017. CR/PR at Table III-17. For integrated producers, productivity was *** pounds per hour in 2014, *** pounds per hour in 2015, and *** pounds per hour in 2016; it was *** pounds per hour in interim 2016 and *** pounds per hour in interim 2017. For non-integrated producers, productivity was *** pounds per hour in 2014, *** pounds per hour in 2015, and *** pounds per hour in 2016; it was *** pounds per hour in interim 2016 and *** pounds per hour in interim 2017. CR/PR at Tables III-15 – III-16.

[159] Net sales by value fell from $*** in 2014 to $*** in 2015 and $*** in 2016; they were $*** in interim 2016 and $*** in interim 2017. CR/PR at Table VI-7.

but then decreased from 2015 to 2016, ending at a lower level in 2016 than in 2014; they were lower in interim 2017 than in interim 2016.[160] Operating income increased from 2014 to 2015 and then declined from 2015 to 2016 to a level still higher than that in 2014. Net income, however, initially fell from 2014 to 2015, but then increased from 2015 to 2016 to a level higher than that in 2014. Both operating income and net income were lower in interim 2017 than in interim 2016.[161] Capital expenditures fluctuated during the period of investigation, but decreased substantially overall from 2014 to 2016 and were *** in interim 2017.[162]

As described above, cumulated subject imports were significant in absolute terms and maintained a large share of the U.S. market throughout the period of investigation. This significant volume of cumulated subject imports, which were highly substitutable with the domestic like product, widely undersold the domestic like product, and as a result, the domestic industry lost a substantial volume of sales to low-priced cumulated subject imports throughout the period of investigation. In addition, as apparent U.S. consumption and the domestic industry's market share declined from 2014 to 2015, cumulated subject imports maintained their substantial market share. Although the domestic industry was able to regain some market share in 2016 as the volume of cumulated subject imports substantially decreased, apparently at least in part due to the imposition of the exclusion order on subject producer Viraj, the domestic industry lost market share to cumulated subject imports in interim 2017, reaching its lowest level over the period examined. Because of the sales lost to subject imports, the domestic industry obtained less revenue than it otherwise would have.

We recognize that certain trends in the domestic industry's performance indicia, particularly increases in the domestic industry's operating income and net income (notwithstanding the declines in other indicia), raise questions regarding the correlation between cumulated subject imports and the condition of the domestic industry during the period of investigation and whether other factors may explain changes in the industry's condition. We intend to explore these issues further in any final phase of these investigations. We find, however for purposes of the preliminary phase of these investigations, that subject imports had a significant impact on the domestic industry.[163]

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[160] The domestic industry's gross profits were $*** in 2014, $*** in 2015, and $*** in 2016; they were $*** in interim 2016 and $*** in interim 2017. CR/PR at Table VI-7.

[161] The domestic industry's operating income was $*** in 2014, $*** in 2015, and $*** in 2016; it was $*** in interim 2016 and $*** in interim 2017. Its net income was $*** in 2014, $*** in 2015, and $*** in 2016; it was $*** in interim 2016 and $*** in interim 2017. CR/PR at Table VI-5. The divergence between the absolute level and directional pattern of the domestic industry's operating income and net income are generally explained by *** financial results in which it reported ***. CR at VI-16; PR at VI-4 – VI-5; CR/PR at Tables VI-1 & VI-3.

[162] Total capital expenditures for the domestic industry were $*** in 2014, $*** in 2015, and $*** in 2016; they were $*** in interim 2016 and *** in interim 2017. CR/PR at Table VI-8. There were no reported research and development expenses during the period of investigation. *Id.*

[163] Although we are required to analyze the impact of subject imports on the domestic industry as a whole, we observe that there are considerable differences between the unit net sales values and (Continued…)

We have also considered whether there are other factors that may have had an impact on the domestic industry during the period of investigation to ensure that we are not attributing injury from these factors to subject imports. As discussed above, apparent U.S. consumption fell *** percent from 2014 to 2016.[164] The declines in demand, however, cannot explain the sales and revenues the domestic industry lost to subject imports. We will further explore the role of declining demand in the U.S. market in any final phase of these investigations.

We have also considered the presence of nonsubject imports during the period of investigation. As described above, nonsubject imports were the second largest source of supply during the period of investigation. Although their market share increased from 2014 to 2016, they also lost market share to subject imports in interim 2017. We find, therefore, for purposes of the preliminary phase of these investigations, that nonsubject imports do not explain the significant volume of sales that domestic producers lost to low-priced cumulated subject imports. We will further examine the effects of nonsubject imports in any final phase investigations.

Accordingly, for the purposes of these preliminary determinations, we conclude that cumulated subject imports had a significant impact on the domestic industry.

## VIII. Conclusion

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

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(…Continued)
the financial performances of integrated producers and non-integrated producers. In 2016, the unit net sales values for *** was $*** per pound, while the unit sales for finishing operations was $*** per pound for ***, $*** per pound for ***, and $*** per pound for ***. CR/PR at Table VI-7. We intend to explore this issue further, including any differences in product mix or production processes, in any final phase investigations.

[164] CR/PR at Table 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 Core Pipe Products, Inc. ("Core Pipe"), Carol Stream, Illinois, and Maass Flange Corporation ("Maass"), Houston, Texas, on August 16, 2017, 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 forged stainless steel flanges ("stainless steel flanges")[1] from China and India. The following tabulation provides information relating to the background of these investigations.[2] [3]

| Effective date | Action |
|---|---|
| **August 16, 2017** | Petition filed with Commerce and the Commission; institution of Commission investigation (82 FR 39914, August 22, 2017) |
| **September 6, 2017** | Commission's conference |
| **September 11, 2017** | Commerce's notice of initiation of less-than-fair-value investigations (82 FR 42649, September 11, 2017) |
| **September 11, 2017** | Commerce's notice of initiation of countervailing duty investigations (82 FR 42654, September 11, 2017) |
| **September 29, 2017** | Commission's vote |
| **October 2, 2017** | Commission's determination |
| **October 10, 2017** | Commission's views |

## STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

### Statutory criteria

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

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such*

[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.

*merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

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

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

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[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

Stainless steel flanges are generally used to connect stainless steel pipe sections and piping components (valves, pumps, tanks and other equipment) to form a piping system. Stainless steel flanges are used in petrochemical, gas, coal, and nuclear energy applications, as well as, military applications including naval ships, submarines, and jet refueling systems.[6] The leading U.S. integrated producer of stainless steel flanges is Maass and the leading non-integrated finishers of stainless steel flanges from forgings produced by another firm include Core Pipe and Kerkau Manufacturing ("Kerkau"). The leading producers of stainless steel flanges outside the United States include Jiangyin Shengda Brite Line Kasugai Flange Co., Ltd. ("SBK Flange") of China, and Viraj Profiles Limited ("Viraj") and Bebitz Flanges Works Private Limited ("Bebitz") of India. The leading U.S. importers of stainless steel flanges from China are ***, while the leading importers of stainless steel flanges from India are ***. Leading importers of stainless steel flanges from nonsubject countries (primarily Canada, Italy, Mexico, and the Philippines) include ***. U.S. purchasers of stainless steel flanges are firms that are primarily distributors, but some are non-integrated finishers or end-users; according to producers' and importers reported top ten customers, leading purchasers include ***.

Apparent U.S. consumption of stainless steel flanges totaled *** pounds ($***) in 2016. Currently, nine firms are believed to produce stainless steel flanges in the United States, although only three U.S. producers provided useable questionnaire responses.[7] U.S. producers' U.S. shipments of stainless steel flanges totaled *** pounds ($***) in 2016, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.[8] U.S. imports from subject sources totaled 23.1 million pounds ($51.5 million) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from

[6] Conference transcript, p. 9 (Maass).

[7] See Part III for details regarding known U.S. producers of stainless steel flanges.

[8] U.S. shipments were almost entirely finished flanges (see table III-10); in contrast, approximately two-thirds of subject imports were finished stainless steel flanges (table IV-3). Finished stainless steel flanges weigh less than unfinished stainless steel flanges of the same size because finishing operations involve removal of material from the unfinished product.

nonsubject sources totaled 16.1 million pounds ($58.8 million) in 2016 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

## SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations is presented in appendix C, table C-1 (U.S. market with all producers' operations), table C-2 (U.S. market with only Maass' production operations), and table C-3 (U.S. market excluding non-integrated finishing operations). Except as noted, U.S. industry data are based on questionnaire responses of three firms that accounted for *** percent of integrated U.S. production of stainless steel flanges and a majority of stainless steel flanges finishing-only production during 2016. U.S. imports are based on official import statistics and questionnaire responses of 12 U.S. importers.[9]

## PREVIOUS AND RELATED INVESTIGATIONS

### Stainless steel flanges

In February 1994, the Commission determined that an industry in the United States was threatened with material injury by reason of imports of forged stainless steel flanges from India and Taiwan that Commerce had determined to be sold in the United States at LTFV.[10] In February 1994, Commerce issued antidumping duty orders on forged stainless steel flanges from India and Taiwan. In both the Commission's first and second expedited five-year reviews (July 2000 and December 2005), it determined that revocation of the antidumping duty orders on forged stainless steel flanges from India and Taiwan would likely lead to a continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[11] Commerce initiated and the Commission instituted a third sunset review of the orders in November 2010. However, because Commerce did not receive a notice of intent to participate from domestic interested parties, it subsequently revoked the orders, effective January 23, 2011.[12]

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[9] A number of U.S. producers and importers reported an inability to complete the questionnaires in time because of flooding in the Houston area caused by Hurricane Harvey during the last week of August 2017. See investigator telephone log for August 21, 2017–September 25, 2017 and various emails from investigator to U.S. producers.

[10] The scope in the prior investigations of stainless steel flanges from India and Taiwan differed from the scope in these preliminary investigations, as there was no size restriction on covered flanges.

[11] *Forged Stainless Steel Flanges From India and Taiwan, Investigation Nos. 731-TA-639 and 640 (Review),* USITC Publication 3329, July 2000; *Forged Stainless Steel Flanges From India and Taiwan, Investigation Nos. 731-TA-639 and 640 (Second Review),* USITC Publication 3827, December 2005.

[12] *Forged Stainless Steel Flanges From India and Taiwan: Final Results of Sunset Reviews and Revocation of Antidumping Duty Orders*, 76 FR 5331, January 31, 2011.

## Other flange and fitting products

Steel flanges and fittings have been the subject of prior Commission investigations. All previous and related investigations involving such products are presented in table I-1.

**Table I-1**

**Steel flanges and fittings: Previous and related title VII investigations**

| Original investigation | | | | First review | | Second review | | Third review | | Current status |
|---|---|---|---|---|---|---|---|---|---|---|
| Date[1] | Number | Country | Outcome | Date[1] | Outcome | Date[1] | Outcome | Date[1] | Outcome | |
| 1988 | 731-TA-376 (Stainless butt-weld fittings) | Japan | Affirmative | 2000 | Affirmative | 2005 | Affirmative | 2010 | - | ITA Revoked 11/5/2010[2] |
| 1993 | 731-TA-563 (Stainless butt-weld fittings) | Korea | Affirmative | 2000 | Affirmative | 2005 | Affirmative | 2010 | - | ITA Revoked 11/5/2010[2] |
| 1993 | 731-TA-564 (Stainless butt-weld fittings) | Taiwan | Affirmative | 2000 | Affirmative | 2005 | Affirmative | 2010 | - | ITA Revoked 11/5/2010[2] |
| 1999 | 731-TA-864 (Stainless butt-weld fittings) | Germany | Negligible[3] | - | - | - | - | - | - | - |
| 1999 | 731-TA-865 (Stainless butt-weld fittings) | Italy | Affirmative | 2006 | Affirmative | 2012 | Affirmative | 2017 | - | Order in effect[4] |
| 1999 | 731-TA-866 (Stainless butt-weld fittings) | Malaysia | Affirmative | 2006 | Affirmative | 2012 | Affirmative | 2017 | - | Order in effect[4] |
| 1999 | 731-TA-867 (Stainless butt-weld fittings) | Philippines | Affirmative | 2006 | Affirmative | 2012 | Affirmative | 2017 | - | Order in effect[4] |
| 2016 | 701-TA-563 (Carbon steel flanges) | India | Affirmative | - | - | - | - | - | - | Order in effect |
| 2016 | 731-TA-1331 (Carbon steel flanges) | India | Affirmative | - | - | - | - | - | - | Order in effect |
| 2016 | 731-TA-1332 (Carbon steel flanges) | Italy | Affirmative | - | - | - | - | - | - | Order in effect |
| 2016 | 731-TA-1333 (Carbon steel flanges) | Spain | Affirmative | - | - | - | - | - | - | Order in effect |

[1] "Date" refers to the year in which the investigation or review was instituted by the Commission.
[2] Commerce did not receive a notice of intent to participate from domestic interested parties and subsequently revoked the order.
[3] The Commission found subject imports to be negligible, and its investigation was thereby terminated.
[4] The Commission determined it would conduct expedited third five-year reviews on stainless steel butt-weld pipe fittings from Italy, Malaysia, and the Philippines on September 5, 2017.

Footnotes continued.

**Table I-1--Continued**

**Steel flanges and fittings: Previous and related title VII investigations**

Source: *Stainless Steel Butt-Weld Pipe Fittings From Japan, Korea, and Taiwan, Investigation Nos. 731-TA-376, 563 and 564 (Second Review),* USITC Publication 3801, September 2005; *Certain Stainless Steel Butt-Weld Pipe Fittings From Japan, South Korea and Taiwan; Final Results of Sunset Reviews and Revocation of Antidumping Duty Orders*, 75 FR 68324, November 5, 2010; *Certain Stainless Steel Butt-Weld Pipe Fittings From Germany, Investigation No. 731-TA-864 (Final),* USITC Publication 3372, November 2000; *Certain Stainless Steel Butt-Weld Pipe Fittings from Italy, Malaysia, and the Philippines, Investigation Nos. 731-TA-865-867 (Second Review),* USITC Publication 4337, June 2012; *Finished Carbon Steel Flanges from Spain, Investigation No. 731-TA-1333 (Final)*, USITC Publication 4696, June 2017; *Finished Carbon Steel Flanges from India and Italy, Investigation Nos. 701-TA-563 and 731-TA-1331-1332 (Final)*, USITC Publication 4714, August 2017; *USITC Votes to Expedite Five-Year (Sunset) Reviews Concerning Stainless Steel Butt-Weld Pipe Fittings from Italy, Malaysia, and the Philippines*, USITC News Release 170124, September 5, 2017.

## Safeguard investigation

The Commission conducted a safeguard investigation under section 201 of the Trade Act of 1974 concerning certain steel products, which included stainless steel fittings and flanges.[13] The Commission instituted that investigation following the receipt of a request from the Office of the United States Trade Representative ("USTR") on June 22, 2001.[14] On July 26, 2001, the Commission received a resolution adopted by the Committee on Finance of the United States Senate requesting that the Commission investigate certain steel imports under section 201 of the Trade Act of 1974. Consistent with the Senate Finance Committee's resolution, the Commission consolidated the investigation requested by the Committee with the Commission's previously instituted Investigation No. TA-201-73.[15] On December 20, 2001, the Commission issued its determinations and remedy recommendations. It reached an affirmative determination with respect to certain steel products, but was evenly divided on stainless steel flanges. The three affirmative–voting Commissioners recommended different remedies including increased tariffs or quotas for up to 4 years.[16] Presidential Proclamation 7529 implemented safeguard measures concerning certain steel products, principally in the form of tariffs and tariff-rate quotas, effective March 20, 2002, which were originally intended to last for a period of three years and one day. The President did not include stainless steel flanges in his proclamation, although carbon and alloy flanges and fittings were included.[17] On December 4, 2003, President Bush terminated the increased tariffs under the safeguard measure.[18]

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[13] *Steel, Investigation No. TA-201-73, Volume* 1, USITC Publication 3479, December 2001.

[14] *Steel*, 66 FR 35267, July 3, 2001.

[15] *Steel*, 66 FR 44158, August 22, 2001; *Steel; Correction*, 66 FR 45324, August 28, 2001.

[16] *Steel, Investigation No. TA-201-73, Volume 1,* USITC Publication 3479, December 2001, p. 22.

[17] *Proclamation 7529 of March 5, 2002, To Facilitate Positive Adjustment to Competition From Imports of Certain Steel Products,* 67 FR 10553, March 7, 2002.

[18] *Proclamation 7741 of December 4, 2003, To Provide for the Termination of Action Taken With Regard to Imports of Certain Steel Products*, 68 FR 68481, December 8 2003.

## Section 337

On September 5, 2014, Valbruna Slater Stainless, Inc., *et. al.* ("Valbruna") filed a Section 337 complaint against several respondents. The complaint alleged misappropriation of trade secrets related to a number of stainless steel products including flanges, forgings, and fasteners.[19] On December 8, 2015, the presiding administrative law judge ("ALJ") issued an initial determination finding respondent Viraj Profiles Limited (an Indian producer of stainless steel flanges) in default for spoliation of evidence.[20] The Commission ultimately upheld the ALJ's initial determination, finding a violation of Section 337 as to Viraj [21] and issuing a limited exclusion order for stainless steel products using Valbruna's trade secrets imported by Viraj, or its affiliated companies, subsidiaries, parents, or other related business entities for a period of 16.7 years.[22] On September 11, 2017, the U.S. Court of Appeals for the Federal Circuit issued a summary affirmance of the Commission's determination.[23]

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

### Alleged subsidies

On September 11, 2017, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigations on stainless steel flanges from China and India.[24] Commerce identified the following government programs in China:

- **A. Preferential Lending Government Provision of Goods and Services for Less Than Adequate Remuneration (LTAR)**
  1. Provision of Electricity for LTAR
  2. Provision of Water for LTAR
- **B. Provision of Land for LTAR**
  1. Provision of Land-Use Rights for LTAR
- **C. Preferential Loans and Interest Rates**
  1. Policy Loans to the Flange Industry
  2. Preferential Loans for SOEs
  3. Loan and Interest Subsidies Provided Pursuant to the Northeast Revitalization Program

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[19] *Certain Stainless Steel Products, Certain Processes for Manufacturing or Relating to Same and Certain Products Containing Same (337-TA-933);* Complaint, pp. 18–19, September 5, 2014.

[20] *337-TA-933;* Order No. 17, p. 41, December 8, 2015.

[21] *337-TA-933;* Commission Opinion, p. 56, June 9, 2016.

[22] *337-TA-9*33; Limited Exclusion Order, p. 2, May 25, 2016.

[23] *Viraj Profiles Ltd. v. Int'l Trade C'mmn*, Court No. 2016-2482, 2017 WL 3980535 (Fed. Cir. September 11, 2017).

[24] *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Countervailing Duty Investigations*, 82 FR 42654, September 11, 2017.

**D. Grant Programs**

1. Foreign Trade Development Fund Grants
2. Support Fund for the Development of Foreign Trade
3. Export Assistance Grants
4. Export Interest Subsidies
5. Subsidies for Development of "Famous Brands" and China World Top Brands
6. Sub-Central Government Subsidies for Development of Famous Brands and China World Top Brands
7. Funds for Outward Expansion of Industries in Guangdong Province
8. Provincial Fund for Fiscal and Technological Innovation
9. State Key Technology Renovation Fund
10. Shandong Province's Environmental Protection Industry Research and Development Funds

**E. Tax Benefit Programs**

1. Income Tax Reductions under Article 28 of the Enterprise Income Tax
2. Tax Offsets for Research and Development under the EIT
3. Tax Benefits for Enterprises in the Northeast Region
4. Forgiveness of Tax Arrears for Enterprises Located in the Old Industrial Bases of Northeast China
5. Income Tax Credits for Domestically Owned Companies Purchasing Domestically Produced Equipment
6. Grants for the Relocation of Productive Facilities
7. Grants to Nanshan Aluminum

**F. Support for Foreign-Invested Enterprises (FIEs)**

1. Income Tax Benefits for FIEs Based on Geographic Locations
2. Local Income Tax Exemption and Reduction Programs for "Productive" FIEs
3. Tax Refunds for Reinvestment of FIE Profits in Export-Oriented Enterprises

**G. Export Credit Subsidies**

1. The Chinese Government Provides Export Credit Subsidies to Encourage the Export of Chinese Flanges
2. Export Seller's Credit
3. Export Buyer's Credit[25]

[25] *Department of Commerce Enforcement and Compliance Office of AD/CVD Operations, CVD Investigation Initiation Checklist, Stainless Steel Flanges from the People's Republic of China,* Case No. C-570-065, September 5, 2017.

Commerce identified the following government programs in India:

**A. Duty Exemption/Remission Schemes**
1. Advance License Program (ALP)
2. Advance Authorization Program (AAP)
3. Duty Free Import Authorization Scheme (DFIA Scheme)
4. Duty Drawback Program (DDB)

**B. Export Oriented Units (EOUs)**
1. Duty-Free Import of Goods, Including Capital Goods and Raw Materials
2. Reimbursements of Central Sales Tax (CST) Paid on Goods Manufactured in India
3. Duty Drawback on Fuel Procured from Domestic Oil Companies
4. Exemption from Payment of Central Excise Duty (CED) on Goods Manufactured in India and Procured from a Domestic Tariff Area (DTA)

**C. Export Promotion of Capital Goods Scheme (EPCGS)**

**D. Merchandise Exports from India Scheme**

**E. Interest Equalization Scheme**

**F. Status Holder Incentive Scheme (SHIS)**

**G. Pre-Shipment and Post-Shipment Export Financing**

**H. Market Development Assistance Scheme (MDA Scheme)**

**I. Market Access Initiative (MAI)**

**J. Focus Product Scheme**

**K. GOI Loan Guarantees**

**L. Status Certificate Program**

**M. Income Deduction Program (80-IB Tax Program)**

**N. Special Economic Zones (SEZs)**
1. Duty-Free Importation of Capital Goods and Raw Materials, Components, Consumables, Intermediates, Spare Parts, and Packing Material
2. Exemption from Payment of CST on Purchases of Capital Goods and Raw Materials, Components, Consumables, Intermediates, Spare Parts, and Packing Material
3. Exemption from Electricity Duty and Cess on Electricity Supplied to a SEZ Unit
4. SEZ Income Tax Exemption
5. Service Tax Exemption
6. Exemption from Payment of Local Government Taxes and Duties, Such as Sales Tax and Stamp Duties
7. Steel Development Funds Loans (SDF)

**O. Provision of Goods and Services for Less Than Adequate Remuneration (LTAR)**
1. Provision of Stainless Steel, Billet, and Bar by SAIL for LTAR

**P. Incremental Exports Incentive Scheme**

**Q. State Government of Andhra Pradesh (SGAP) Subsidy Programs**

1. Subsidies under the SGAP Industrial Investment Promotion Policy
    i. Grant Under the Industrial Investment Promotion Policy: 25 Percent Reimbursement of the Cost of Land in Industrial Estates and Development Areas
    ii. Grant Under the Industrial Investment Promotion Policy: Reimbursement of Power at the Rate of Rs. 0.75 per Unit
    iii. Grant under the Industrial Investment Promotion Policy: 50 Percent Subsidy for Expenses Incurred for Quality Certification
    iv. Grant under the Industrial Investment Promotion Policy: 50 Percent Subsidy on Expenses Incurred in Patent Registration
    v. Grant under the Industrial Investment Promotion Policy: 25- or 35-Percent Subsidy in Cleaner Production Measures
    vi. Tax Incentives under the Industrial Investment Promotion Policy: 100 Percent Reimbursement of Stamp Duty and Transfer Duty Paid for the Purchase of Land and Buildings and the Obtaining of Financial Deeds and Mortgages
    vii. Tax Incentives under the Industrial Investment Promotion Policy: Reimbursement on VAT, CST, and State Goods and Services Tax (SGST)
    viii. Tax Incentives under the Industrial Investment Promotion Policy: Exemption from SGAP Non-Agricultural Land Assessment
    ix. Provision of Goods and Services for LTAR under the Industrial Investment Promotion Policy: Provision of Infrastructure for Industries Located More than 10 Kilometers from Existing Industrial Estates or Development Areas
    x. Provision of Goods and Services for LTAR under the Industrial Investment Promotion Policy: Guaranteed Stable Water Prices and Reservation of Municipal Water

**R. State Government of Maharashtra (SGOM) Subsidy Programs**

1. SGOM Sales Tax Program
2. Infrastructure Assistance for Mega Projects under the Maharashtra Industrial Policy of 2013 and Other SGOM Industrial Promotion Policies to Support Mega Projects
3. Subsidies for Mega Projects under the Package Scheme of Incentives [26]

[26] *Department of Commerce Enforcement and Compliance Office of AD/CVD Operations, CVD Investigation Initiation Checklist, Stainless Steel Flanges from India,* Case No. C-533-878, September 5, 2017.

### Alleged sales at LTFV

On September 11, 2017, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on stainless steel flanges from China and India. Commerce has initiated antidumping duty investigations based on estimated dumping margins of 99.23 to 257.11 percent for stainless steel flanges from China and 78.49 to 145.25 percent for stainless steel flanges from India.[27]

## THE SUBJECT MERCHANDISE

### Commerce's scope

Commerce has defined the scope of this investigation as follows:

> *…certain forged stainless steel flanges, whether unfinished, semifinished, or finished (certain forged stainless steel flanges). Certain forged stainless steel flanges are generally manufactured to, but not limited to, the material specification of ASTM/ASME A/SA182 or comparable domestic or foreign specifications. Certain forged stainless steel flanges are made in various grades such as, but not limited to, 304, 304L, 316, and 316L (or combinations thereof). The term ''stainless steel'' used in this scope refers to an alloy steel containing, by actual weight, 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements.*
>
> *Unfinished stainless steel flanges possess the approximate shape of finished stainless steel flanges and have not yet been machined to final specification after the initial forging or like operations. These machining processes may include, but are not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing. Semifinished stainless steel flanges are unfinished stainless steel flanges that have undergone some machining processes.*
>
> *The scope includes six general types of flanges. They are: (1) Weld neck, generally used in butt-weld line connection; (2) threaded, generally used for threaded line connections; (3) slip-on, generally used to slide over pipe; (4) lap joint, generally used with stub-ends/butt-weld line connections; (5) socket weld, generally used to fit pipe into a machine recession; and (6) blind, generally used to seal off a line. The sizes and descriptions of the flanges within the scope include all pressure classes of ASME B16.5 and range from one-half inch to twenty-four inches nominal*

[27] *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Less-Than-Fair-Value investigations*, 82 FR 42649, 42652, September 11, 2017.

*pipe size. Specifically excluded from the scope of these orders are cast stainless steel flanges. Cast stainless steel flanges generally are manufactured to specification ASTM A351.*

*The country of origin for certain forged stainless steel flanges, whether unfinished, semifinished, or finished is the country where the flange was forged. Subject merchandise includes stainless steel flanges as defined above that have been further processed in a third country. The processing includes, but is not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing, and/or any other processing that would not otherwise remove the merchandise from the scope of the investigations if performed in the country of manufacture of the stainless steel flanges.*

*Merchandise subject to the investigations is typically imported under headings 7307.21.1000 and 7307.21.5000 of the Harmonized Tariff Schedule of the United States (HTSUS). While HTSUS subheadings and ASTM specifications are provided for convenience and customs purposes, the written description of the scope is dispositive.*[28]

**Tariff treatment**

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations are imported under subheadings 7307.21.10 (forged stainless steel flanges that are tube or pipe fittings, not machined, tooled or otherwise processed after forging) and 7307.21.50 (stainless steel flanges, other than those of 7307.21.10 (i.e. forged stainless steel flanges that are tube or pipe fittings, machined, tooled or otherwise processed after forging)) of the Harmonized Tariff Schedule of the United States ("HTS" or "HTSUS"). The 2017 general rate of duty is 3.3 percent *ad valorem* for HTS subheading 7307.21.10 and 5.6 percent *ad valorem* for HTS subheading 7037.21.50. Forged stainless steel flanges imported from India under HTS 7307.21.50 are eligible for duty-free treatment under the Generalized System of Preferences (GSP) Program, but not if imported under HTS 7307.21.10.[29] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

[28] *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Less-Than-Fair-Value investigations*, 82 FR 42654, September 11, 2017.

[29] USITC, "General Notes, Products of Countries Designated Beneficiary Developing Countries for Purposes of the Generalized System of Preferences (GSP)," HTSUS (2017) Revision 1, July 1, 2017, pp. GN 15-GN 16.

## THE PRODUCT

### Description and applications[30]

Stainless steel flanges are used to connect together stainless steel pipe sections and piping components (valves, pumps, tanks, and other equipment) to form a piping system. Stainless steel flanges are usually welded or screwed to the ends of pipes or other equipment requiring a connection (i.e., joint). Flanged joints are made by bolting together two flanges with a gasket[31] between them to provide a seal. Flanged (bolted) joints are frequently used where the components being joined are not otherwise capable of being welded together, quick field assembly is required, or the pipe sections that are joined must be frequently accessed or removed for service.[32]

In general, flanges are specified by production method (forged or cast), level of finishing (unfinished, semifinished or finished), type of steel (cast-iron, carbon steel, stainless steel, and other alloy steels),[33] [34] type or configuration (weld neck, slip-on, socket weld, lap joint, threaded, or blind), type of face (e.g. flat, full, raised, ring joint, tongue and groove),[35] overall flange size, nominal pipe size of the connecting pipe, wall thickness of connecting pipe (only applicable to weld-neck and socket-weld flanges), number of bolt holes in the flange, and pressure ratings.[36]

The stainless steel flanges subject to these investigations are forged[37] and can be finished, or unfinished.[38] Subject stainless steel flanges are made from stainless steel[39] and are generally

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[30] Unless otherwise indicated, information in this section was taken from the petition, pp. 4-6.

[31] A gasket is a material or combination of materials designed to clamp between the mating faces of a flange joint. The primary function of a gasket is to seal the irregularities of each face of the flange, thereby preventing leakage of the service fluid from inside the flange to the outside. Mohinder L. Nayyar, *Piping Handbook: Seventh Edition*, 2000, p. A.339.

[32] Mohinder L. Nayyar, Piping Handbook: Seventh Edition, 2000, pp. A.87-A.88.

[33] Usually specified by ASTM specification number with grades and classes (if applicable). Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 13, 2017.

[34] The type of steel that the flange is made from usually matches the pipe. Welding metals with the same chemical composition and physical properties is easier for installers than welding dissimilar metals.

[35] The face has to be machined to specific dimensions and tolerances to match the gasket used to seal the flanges when they are bolted together.

[36] Pressure classes are defined by ASME or other standards-producing organizations and specify pressure ratings for a range of temperatures. For ASME, the classes are 150, 300, 400, 600, 900, 1500, and 2500. Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 13, 2017.

[37] Commerce's scope excludes flanges that are cast.

[38] Unfinished stainless steel flanges include: 1) Semifinished stainless steel flanges have undergone some machining processes, but have not yet been machined to final specification and 2) forgings that possess the approximate shape of finished stainless steel flanges but have not yet been machined after the initial forging operations.

manufactured to, but not limited to, the material specification of ASTM A182/A182M[40] or comparable domestic or foreign specifications. Subject stainless steel flanges are made in various grades of stainless steel such as, but not limited to, 304,[41] 304L,[42] 316,[43] and 316L (or combinations thereof). The petitioner stated that stainless steel flanges made from "300 series" grades[44] of stainless steel represented the majority of the volume of subject flanges sold in the U.S. market.[45] Subject stainless steel flanges range from one-half to 24 inches in nominal pipe size and meet sizes and description standards for all pressure classes of ASME B16.5.[46] The six general types or configurations of stainless steel flanges that are covered by these investigations (figure I-1) are described below:

- Weld neck (also called welding neck) flanges are distinguished from other flanges by their long, tapered hub (neck) and gentle transition to the region where the flange is

(…*continued*)

[39] The definition of stainless steel in Commerce's scope matches that in the Explanatory Notes in Section 15 of the HTS: "Alloy steels containing, by weight 1.2 percent or less of carbon and 10.5 percent or more of chromium, with or without other elements." In the steel industry, the term "stainless steel" does not refer to a single alloy but to a group of iron-based alloys that contain at least 10.5 percent chromium. Other elements can be added and the chromium content increased to improve corrosion resistance and/or enhance mechanical properties. There are more than 50 types of stainless steel recognized by the American Iron and Steel Institute. The Specialty Steel Industry of North America, *Specifications for Stainless Steel*, p. 1, http://www.ssina.com/download_a_file/specifications.pdf, retrieved September 8, 2017.

[40] ASTM A182 / A182M – 16a Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service. ASTM International. https://www.astm.org/Standards/A182.htm.

[41] Type 304 (sometimes referred to as 18-8 stainless) is the most widely used alloy of the austenitic group. It has a nominal composition of 18 percent chromium and 8 percent nickel. It withstands ordinary rusting in architecture, is resistant to food processing environments (except some high-temperature conditions involving high acid and chloride contents), and resists inorganic and organic chemicals. *Design Guidelines for the Selection and Use of Stainless Steel*, The Specialty Steel Industry of North America, p. 1, http://www.ssina.com/download_a_file/specifications.pdf, retrieved September 8, 2017.

[42] Type 304L (low carbon) resists nitric acid and sulfuric acids at moderate temperatures. It is used extensively for storage of liquefied gases.

[43] Type 316 contains slightly more nickel than Type 304, and 2-3 percent molybdenum giving it better resistance to corrosion than Type 304. It is used in sulfite pulp mills and handling chemicals in process industries.

[44] Austenitic stainless steels containing chromium and nickel are identified as 300 Series types.

[45] Conference transcript, p. 74 (Maass).

[46] ASME B16.5 Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24 Metric/Inch Standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, testing, and methods of designating openings for pipe flanges and flanged fittings. It includes flanges with rating class designations 150, 300, 400, 600, 900, and 1500 in nominal pipe sizes from one-half to 24 inches and flanges with rating class designation 2500 in nominal pipe sizes from one-half to 12 inches. The American Society of Mechanical Engineers (ASME) website, https://www.asme.org/products/codes-standards/b165-2013-pipe-flanges-flanged-fittings-nps-12, retrieved September 13, 2017.

butt welded[47] to the pipe. These flanges are installed by welding the pipe to the neck of the flange.[48] The smooth transition of the taper from flange thickness to pipe wall thickness imparts, under conditions of repeated bending caused by line expansion or other forces, an endurance strength that is equivalent to that of a butt-welded joint between pipes, which, in practice, is the same as that of unwelded pipe. Weld neck flanges are typically used in applications involving high pressures or hazardous fluids and are also used in environments where pipes are exposed to extreme temperatures.[49]

- Slip-on flanges are fitted over the pipe and then fillet welded[50] both inside and outside to provide sufficient strength and prevent leakage. Slip-on flanges are sometimes preferred to weld-neck flanges owing to lower cost and ease of installation. Their calculated strength under internal pressure is about two-thirds of that of weld-neck flanges. They are typically used on low-pressure, low-hazard services such as fire-fighting water, cooling water, etc.[51]

- Socket-weld flanges are attached by inserting the pipe into the socket end and applying a fillet weld around the top. This allows for a smooth bore and better flow of the fluid or gas inside of the pipe. These flanges were initially developed for use in small-diameter, high-pressure lines. Internally welded socket flanges are typically used in chemical processes, hydraulic applications, and steam distribution lines.[52]

- A lap-joint is similar to a slip-on flange, with the main difference being that it has a curved radius at the bore and face to house a lap-joint stub end. A pipe is usually welded to the stub end and the lap-joint pipe flange is free to rotate around the stub end. The face on the stub end forms the gasket face on the flange. Because the flange

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[47] A butt weld is a circumferential butt welded joint, and the most common type of joint employed in the fabrication of welded pipe systems. A butt joint is the most universally used method of joining pipe to itself, fittings, flanges, valves, and other equipment. See http://www.wermac.org/others/welding_basic-welding-joints_butt-weld_fillet-weld.html for an illustration of butt welded joints.

[48] The inside diameter of weld neck is machined to match the inside diameter of the pipe.

[49] Mohinder L. Nayyar, Piping Handbook: Seventh Edition, 2000, p. A.335 and Maass Global Group website at http://www.maassflange.com/sites/site_40.html, retrieved September 12, 2017.

[50] A fillet weld is the most common type of weld. Fillet welds occur when two perpendicular or overlapping lengths are welded together. http://www.weldguru.com/weldtypesandpositions.html for an illustration of various fillet welds.

[51] Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 12, 2017 and Maass Global Group website at http://www.maassflange.com/sites/site_41.html,retrieved September 12, 2017.

[52] Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 12, 2017 and Maass Global Group website at http://www.maassflange.com/sites/site_46.html, retrieved September 12, 2017, and Coastal Flange website at http://www.coastalflange.com/pipe-flanges.html, retrieved September 13, 2017.

itself is not welded, it can be easily rotated for alignment and is typically used in applications where sections of piping systems need to be dismantled quickly and easily for inspection or replacement.[53]

- Threaded, or screwed, flanges are used to connect other threaded components in low-pressure, non-critical applications. This is similar to a slip-on flange, but the bore[54] is threaded, thus enabling assembly without welding. They are used with pipes that have external threads. Threaded pipe flanges are often used for small-diameter pipes and are not suitable for conditions involving temperature or bending stresses, particularly under cyclical conditions, where leakage through the threads may occur in relatively few cycles of heating or stress.[55]

- Blind flanges are used to blank off pipe lines, valves or pumps. Blind, or "blanking," flanges also permit easy access to vessels or piping systems for inspection purposes. Blind flanges can be supplied with or without center hubs. Blind flanges are subjected to more stress from internal pressure than other types of flanges.[56]

**Figure I-1**
**Stainless steel flanges: Common types of stainless steel flanges**


*Source*: Wermac, "Explore the World of Piping," http://www.wermac.org/flanges/flanges_welding-neck_socket-weld_lap-joint_screwed_blind.html, retrieved September 12, 2017.

Forged stainless steel flanges are generally used in applications where one or more of the following conditions are a factor in designing the piping system: (1) corrosion resistance; (2) contamination prevention; (3) high temperatures (in excess of 300 degrees Fahrenheit); (4)

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[53] Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 12, 2017 and Palmer Engineering website at http://www.forgedflangesandfittings.com/carbon-steel-forged-flanges/lap-joint-flanges.html, retrieved September 12, 2017.

[54] A flange bore is the center hole through which the gas or liquid flows.

[55] Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 12, 2017, Palmer Engineering website at http://www.forgedflangesandfittings.com/carbon-steel-forged-flanges/threaded-flanges.html, retrieved September 12, 2017, and Coastal Flange website at http://www.coastalflange.com/pipe-flanges.html, retrieved September 13, 2017.

[56] Boltex Mfg. Co. at http://www.boltex.com/about-flanges.html, retrieved September 12, 2017 and Maass Global Group website at http://www.maassflange.com/sites/site_42.html, September 12, 2017.

extremely low temperatures; and/or (5) pressure containment. In general, pipes (and flanges) made from stainless steel and other steel alloys are highly durable, but much more expensive than pipes of regular carbon steel. Accordingly, stainless steel and alloy steel products are mostly used in highly corrosive or demanding conditions unsuitable for regular carbon steel, whereas carbon steel products are mostly used in standard applications where their lower cost is a more important consideration. In 2017, stainless steel pipe is anticipated to account for about 9.4 percent of total pipe and tube industry sales revenue in the United States.[57] Forged stainless steel flanges are a component of stainless steel process piping in oil and gas refineries, nuclear power plants, chemical synthesis plants, paper mills, food processing facilities, and other applications where cleanliness and corrosion resistance are required and in power plants where their high-temperature properties are needed.[58] Maass estimates that approximately *** percent of subject flanges are used in the oil refining industry, *** percent in the petrochemical industry, and *** percent in the power generation industry. The remaining ***, is used in the pharmaceutical, nuclear energy, defense, and food processing industries. Many of the integrated producers and the bulk of domestic production capacity are located in Texas, near the oil refining and petrochemical industries.[59]

### Manufacturing processes[60]

The manufacturing process for forged stainless steel flanges involves three main steps: (1) forging,[61] (2) heat treatment, and (3) finishing.[62] Integrated manufactures perform all of these steps to produce a finished stainless steel flange from stainless steel billets or bars. Converters or non-integrated finishers typically purchase rough forgings or semifinished flanges[63] and perform finishing steps[64] to produce finished flanges.

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[57] *IBISWorld Industry Report 33121 Metal Pipe & Tube Manufacturing in the US* at https://www.ibisworld.com/industry-trends/market-research-reports/manufacturing/primary-metal/metal-pipe-tube-manufacturing.html, retrieved July 14, 2017.

[58] Mohinder L. Nayyar, Piping Handbook: Seventh Edition, 2000, p. A.296.

[59] Petitioners' postconference brief, pp. 32-33.

[60] Unless otherwise indicated, information in this section was taken from the Petition, Volume 2, pp. 14-16 and Counsel for petitioners, email message to staff, August 31, 2017.

[61] Forging is the manufacturing process where metal is pressed, pounded or squeezed under great pressure into high strength parts known as forgings. The process is normally (but not always) performed hot by preheating the metal to a desired temperature before it is worked. It is important to note that the forging process is entirely different from the casting (or foundry) process, as metal used to make forged parts is never melted and poured (as in the casting process). Forging Industry Association website at https://www.forging.org/about, retrieved September 13, 2017.

[62] Petitioners note that, to the best of their knowledge, the manufacturing process for integrated producers *** in China is similar to that of ***. Petition, Volume 2, p. 14.

[63] A flange that has been forged and machined and requires minimal processing, such as drilling bolt holes, to finish. Conference transcript, pp. 18-19 (Maass).

Stainless steel flanges are made from stainless steel billet or bar (of rectangular or round cross-sectional shape), which is sorted by heat lot number. The bar or billet is cut to size according to the input weight and length requirements of the subsequent forging process. The cut pieces are then transferred to a staging area to await the forging process. The forging process begins when the cut steel billet or bar is heated to forging temperature, typically from 1,900 to 2,300 degrees Fahrenheit, in either electro-inductive ovens or natural gas-fired furnaces. After the cut steel billet or bar has reached the target temperature, it is moved to a forging hammer line, where an electro-hydraulic forging hammer "forges" it into a forging shape. The forging shape is determined by the engineered closed die forging tooling, installed on the forging equipment, which imparts the general dimensions of finished flanges, with sufficient allowances for machining and forging flaws. Upon completing the closed die forging process, the forged material is then conveyed to the trim press where it receives its final shaping and all excess material is trimmed off the part.

Once these parts are completely forged, they are either directly water quenched (solution annealed) or loaded into steel containers for controlled still-air cooling and are then sent to post-forging heat treatment. Post-forging heat treatment is required for certain flanges to impart the specified mechanical properties or grain structure.[65] First, the forgings are stacked on pallets and placed in ovens where they are heated to the desired temperature. Next, the forgings are either still-air cooled or quenched in a controlled temperature water tank. After cooling to ambient temperature, they are reloaded into ovens for tempering to assure optimal mechanical properties and achieve material hardness. Once cooled, these parts are completed forgings. At this point in the production process, the completed forgings are ready to be transformed into finished stainless steel flanges.

The finishing process typically requires setting up tooling on a programmable Computer Numeric Controlled ("CNC") lathe, which includes carbide milling inserts, drill bits, etc. The CNC program instructs the lathe to move both the tooling and the forging so that the part may be consistently machined. Once a CNC lathe is set up for a production run, the operator will run the first piece and conduct a first article inspection, ensuring that the dimensional characteristics meet the technical specifications. During this finishing stage, each flange goes through a four-stage machining process. The face and internal diameter is machined first, then the back face and outer diameter. Once the lathe work is completed, the flange moves to the drilling department, where CNC machining centers drill the bolt holes of each flange. After

(…*continued*)

[64] These machining processes may include, but are not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing.

[65] Heat treatment is a process that alters the properties of steel by subjecting it to a series of temperature changes. It is done to increase the hardness, strength, or ductility of steel so that it is suitable for additional applications. The steel is heated and then cooled as necessary to provide changes in the structural form that will impart the desired characteristics. The time spent at each temperature and the rates of cooling have significant impact on the effect of the treatment. American Iron and Steel Institute website at http://www.steel.org/making-steel/glossary/glossary-f-j.aspx, retrieved September 13, 2017.

drilling, the flange is moved to the marking department, where it is deburred,[66] and hard engraved or stamped for identification and traceability.[67] After marking, the flange is inspected and cleaned prior to shipment.

Stainless steel flanges are then packed onto freight pallets or wooden crates as required by customers. If the customers do not pick up the flanges, producers will typically ship them via standard freight lines or local trucking companies, depending on how far the customers are from the manufacturer.

## DOMESTIC LIKE PRODUCT ISSUES

The petitioners propose that the domestic like product should be coextensive with the scope of the investigations which includes stainless steel flanges at various stages of completion (i.e., unfinished, semifinished, and finished).[68] According to the scope of the investigations, the location of forging the stainless steel flange determines country of origin. Accordingly, petitioners propose that the domestic like product does not include stainless steel flanges forged outside the United States, even if it was ultimately finished in the United States to the specifications in the scope definition.[69] Petitioners, therefore, propose that the domestic industry consists of only integrated producers (i.e., firms that both forge and finish stainless steel flanges).[70]

## INTERMEDIATE PRODUCTS

The domestic like product proposed by petitioners includes the intermediate products (forgings and semifinished stainless steel flanges) as well as downstream products (finished stainless steel flanges). The following presents information on these products relating to the Commission's five-factor semifinished product analysis.

### Uses

According to petitioners, there is no use for unfinished stainless steel flanges, other than ultimately being converted into a finished stainless steel flange.[71] Also, petitioners note that the

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[66] The process smooths the sharp edges of a cut piece of steel.

[67] The finished flange is marked with the following information: Manufacturer's emblem, nominal pipe size, pressure rating and specification, material grade, and the heat lot number of the steel used.

[68] Petitioners' postconference brief, p. 3. Petitioners also anticipated like product arguments regarding excluded large and small flanges in their briefing, but no respondent has opposed the exclusion of these products from the domestic like product definition. Petitioners' postconference brief, exh. 1, pp. 2-7.

[69] Petitioners' postconference brief, p. 14.

[70] Petitioners' postconference brief, p. 3.

[71] Petitioners' postconference brief, exh. 1, pp. 8-9.

essential characteristics of finished stainless steel flanges are imparted by the unfinished stainless steel flange.[72]

### Markets

Finished stainless steel flanges are sold to distributors and end users while unfinished flanges are sold to firms with finishing operations for finishing.[73] Maass (an integrated producer) ***.

### Characteristics and functions

Petitioners contend that finished and unfinished stainless steel flanges have essentially the same shape and metallurgy; the only difference is that the finished stainless steel flange undergoes additional machining and marking.[74] Kerkau reported that ***.[75]

### Value

Table I-2 presents U.S. producers' U.S. shipment unit values for finished and unfinished stainless steel flanges (see tables III-10 and III-11).

**Table I-2**
**Stainless steel flanges: U.S. producers' U.S. shipments, by type, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

### Transformation process

Details regarding the finishing process are provided in the "Manufacturing processes" section of this report. U.S. producers provided the information regarding the complexity of the finishing process in table I-3. Maass contends that the forging process requires *** than the finishing process, citing ***.[76]

**Table I-3**
**Stainless steel flanges: U.S. producers' subjective assessments of the finishing complexity**

| Source | Complexity rating | | | | |
|---|---|---|---|---|---|
| | Low 1 | 2 | 3 | 4 | High 5 |
| | Number of firms (count) | | | | |
| U.S. producers | 1 | 1 | 0 | 1 | 0 |

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

[72] Ibid.
[73] Conference transcript, pp. 10 (Maass) and Petitioners' postconference brief, exh. 1, p. 9.
[74] Petitioners' postconference brief, exh. 1, pp. 10-11.
[75] Kerkau's U.S. producers' questionnaire response, II-3e.
[76] Petitioners' postconference brief, exh. 1, pp. 11-12.

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

## U.S. MARKET CHARACTERISTICS

Stainless steel flanges are used to connect stainless steel pipe and piping components (e.g., pumps, valves, tanks, gauges) in applications that require corrosion resistance, high or low temperatures, contamination prevention, and pressure containment.[1] Such applications are common in the oil and gas sector, in refineries, chemical plants, power plants, and pulp and paper facilities. Stainless steel flanges are produced in various sizes and generally to ASTM standards.[2] Stainless steel flanges can be manufactured by an integrated producer that forges the stainless steel into the general shape of the flange and also machines and finishes it to either industry standards or a customer's specifications. A forging facility can also ship unfinished or semifinished stainless steel flanges to a converter for the required machining and finishing to meet either industry or customer specifications.

Apparent U.S. consumption of stainless steel flanges decreased during January 2014-June 2017. Overall, apparent U.S. consumption in 2016 was approximately *** percent lower than in 2014.

## CHANNELS OF DISTRIBUTION

U.S. producers and importers sold mainly to distributors, as shown in table II-1.

## GEOGRAPHIC DISTRIBUTION

U.S. producers and importers of subject stainless steel flanges reported selling stainless steel flanges to all regions in the contiguous United States (table II-2). For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles. There is a general concentration of the market in the Houston area, consistent with the regional focus on the oil and gas and petrochemical industries.

[1] Petition, p. 5.

[2] Petition, p. 5. "Certain forged stainless steel flanges are generally manufactured to the material specification of ASTM/ASME A/SA182." Petition, p. 4.

**Table II-1**
**Stainless steel flanges: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2014-16, January-June 2016, and January-June 2017**

| Item | Period | | | | |
|---|---|---|---|---|---|
| | Calendar year | | | January-June | |
| | 2014 | 2015 | 2016 | 2016 | 2017 |
| | Share of reported shipments (*percent*) | | | | |
| **U.S. producers' U.S. commercial shipments of stainless steel flanges:** | | | | | |
| Distributors | *** | *** | *** | *** | *** |
| End users | *** | *** | *** | *** | *** |
| Finishers / converters | *** | *** | *** | *** | *** |
| **U.S. importers' U.S. commercial shipments of stainless steel flanges from China:** | | | | | |
| Distributors | *** | *** | *** | *** | *** |
| End users | *** | *** | *** | *** | *** |
| Finishers / converters | *** | *** | *** | *** | *** |
| **U.S. importers' U.S. commercial shipments of stainless steel flanges from India:** | | | | | |
| Distributors | *** | *** | *** | *** | *** |
| End users | *** | *** | *** | *** | *** |
| Finishers / converters | *** | *** | *** | *** | *** |
| **U.S. importers' U.S. commercial shipments of stainless steel flanges from subject sources:** | | | | | |
| Distributors | 93.2 | 90.5 | 93.0 | 96.1 | 85.8 |
| End users | *** | *** | *** | *** | *** |
| Finishers / converters | *** | *** | *** | *** | *** |
| **U.S. importers' U.S. commercial shipments of stainless steel flanges from all other countries:** | | | | | |
| Distributors | *** | *** | 96.0 | 94.7 | 95.9 |
| End users | *** | *** | *** | *** | *** |
| Finishers / converters | *** | *** | *** | *** | *** |

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

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

| Region | U.S. producers | Subject U.S. importers | | |
|---|---|---|---|---|
| | | China | India | Subject |
| Northeast | 3 | 8 | 9 | 12 |
| Midwest | 3 | 8 | 9 | 12 |
| Southeast | 3 | 8 | 9 | 12 |
| Central Southwest | 3 | 8 | 9 | 12 |
| Mountains | 3 | 6 | 7 | 9 |
| Pacific Coast | 3 | 7 | 9 | 11 |
| Other[1] | 3 | 4 | 4 | 5 |
| All regions (except Other) | 3 | 6 | 7 | 9 |
| Reporting firms | 3 | 8 | 9 | 12 |

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

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

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. supply

#### Domestic production

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

##### *Industry capacity*

Domestic capacity utilization for the integrated producer declined from *** percent in 2014 to *** percent in 2016 and declined further to *** percent in January to June 2017.[3] Domestic capacity utilization for U.S. producers' finishing operations fluctuated with a general decreasing trend from *** percent in 2014 to *** percent in 2016 but with a slight increase to *** percent in January to June 2017.[4] This relatively low level of capacity utilization suggests that U.S. producers may have substantial ability to increase production of stainless steel flanges in response to an increase in prices.

##### *Alternative markets*

U.S. producers' exports, as a percentage of total shipments, increased. U.S. producers' export shipments rose from *** percent in 2014 to *** percent in 2016, indicating that U.S. producers have limited ability to shift shipments between the U.S. market and other markets in response to price changes.

##### *Inventory levels*

U.S. producers' inventories fluctuated. Relative to total shipments, the integrated U.S. producer's inventory levels decreased from *** percent in 2014 to *** percent in 2016, but were *** percent in interim 2017. The finishers' inventory levels relative to total shipments increased from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2016. These inventory levels suggest that U.S. producers may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

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[3] Integrated U.S. producer capacity utilization in interim 2016 was *** percent.

[4] Non-integrated finisher capacity utilization was *** percent in interim 2016.

### *Production alternatives*

All three responding U.S. producers stated that they could switch production from stainless steel flanges to other products. Other products that producers reportedly can produce on the same equipment as stainless steel flanges are flanges of other materials or stainless steel flanges that are outside the scope of these investigations (i.e., less than 0.5 inch or greater than 24 inches). Factors affecting U.S. producers' ability to shift production include customer demand, time required to change the setup for other materials, and ***.

### *Supply constraints*

None of the U.S. producers and only one importer reported any supply constraints. *** reported that ***.

## Subject imports from China[5]

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

### *Industry capacity*

Chinese capacity utilization decreased from *** percent in 2014 to *** percent in 2016. This relatively low level of capacity utilization suggests that Chinese producers may have substantial ability to increase production of stainless steel flanges in response to an increase in prices.

### *Alternative markets*

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

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

### *Inventory levels*

Responding Chinese firms' inventories remained unchanged from 2014 to interim 2017. Relative to total shipments, inventory levels increased from *** percent in 2014 to *** percent in 2016. These inventory levels suggest that responding Chinese firms may have very limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

### *Production alternatives*

Responding Chinese producers stated that they could switch production from stainless steel flanges to other products. Other products that responding foreign producers reported producing on the same equipment as stainless steel flanges are out-of-scope stainless steel flanges (i.e., less than 0.5 inch or greater than 24 inches). Consumer demand affects Chinese producers' ability to shift production.

## Subject imports from India[6]

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

### *Industry capacity*

Indian capacity utilization decreased from *** percent in 2014 to *** percent in 2016. Indian producers have increased their allocated capacity from *** pounds in 2014 to *** pounds in 2016, and production increased from *** pounds to *** pounds. This relatively low level of capacity utilization suggests that Indian producers may have substantial ability to increase production of stainless steel flanges in response to an increase in prices.

### *Alternative markets*

Indian shipments to markets other than the United States, as a percentage of total shipments, increased. Shipments to domestic markets rose from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2017, and shipments to export markets other than the United States rose from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2017. Indian exports indicate that producers may have substantial ability to

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

shift shipments between domestic or other markets and the U.S. market in response to price changes.

***Inventory levels***

Indian producers' inventories fluctuated. Relative to total shipments, inventory levels declined from *** percent in 2014 to *** percent in 2016 but were *** percent in interim 2017. These inventory levels suggest that responding Indian firms may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

***Production alternatives***

Responding Indian producers stated that they could switch production from stainless steel flanges to other products. Other products that responding foreign producers reportedly can produce on the same equipment as stainless steel flanges are ***. Factors affecting foreign producers' ability to shift production include ***. Indian producers have been changing their product mix from other products to increase production of stainless steel flanges.

**Imports from nonsubject sources**

Imports from nonsubject sources accounted for 41.1 percent of total quantity of U.S. imports in 2016. The largest sources of such imports during January 2014 to June 2017 were Canada, Germany, Japan, the Philippines, Italy and Mexico. Combined, these countries accounted for 81 percent of nonsubject imports in 2016.

## U.S. demand

Based on available information, the overall demand for stainless steel flanges 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 cost share of stainless steel flanges in most of its end-use products.

**End uses and cost share**

U.S. demand for stainless steel flanges depends on the demand for U.S.-produced downstream products. Reported end uses include power plants, refineries, chemical/petrochemical plants, and pulp and paper facilities.

Stainless steel flanges account for a small share of the cost of the end-use products in which they are used. Reported cost shares for some end uses were as follows:

- Refinery/petrochemical/chemical plants (1 percent),
- Power plants (1 to 5 percent),
- Piping (5 percent),
- Pulp and paper (15 percent), and
- Commercial construction (10 percent).

**Business cycles**

One of three U.S. producers and 4 of 11 importers indicated that the market was subject to business cycles or conditions of competition. Specifically, the firms reported that demand for stainless steel flanges is driven by oil and gas prices and the volume of oil and gas projects.

**Demand trends**

Most firms reported a decrease in U.S. demand for stainless steel flanges since January 1, 2014 (table II-3). All responding U.S. producers reported that demand for stainless steel flanges has declined in U.S. and other markets in both the oil and gas sector and other sectors outside of oil and gas. The majority of importers also reported a decline in stainless steel flanges demand in U.S. and other markets for the oil and gas sector. However, importers' reporting of changes in stainless steel flanges demand outside the oil and gas sector was more mixed with 4 reporting a decline in demand in the United States and 5 reporting either no change or fluctuation without a discernible direction.

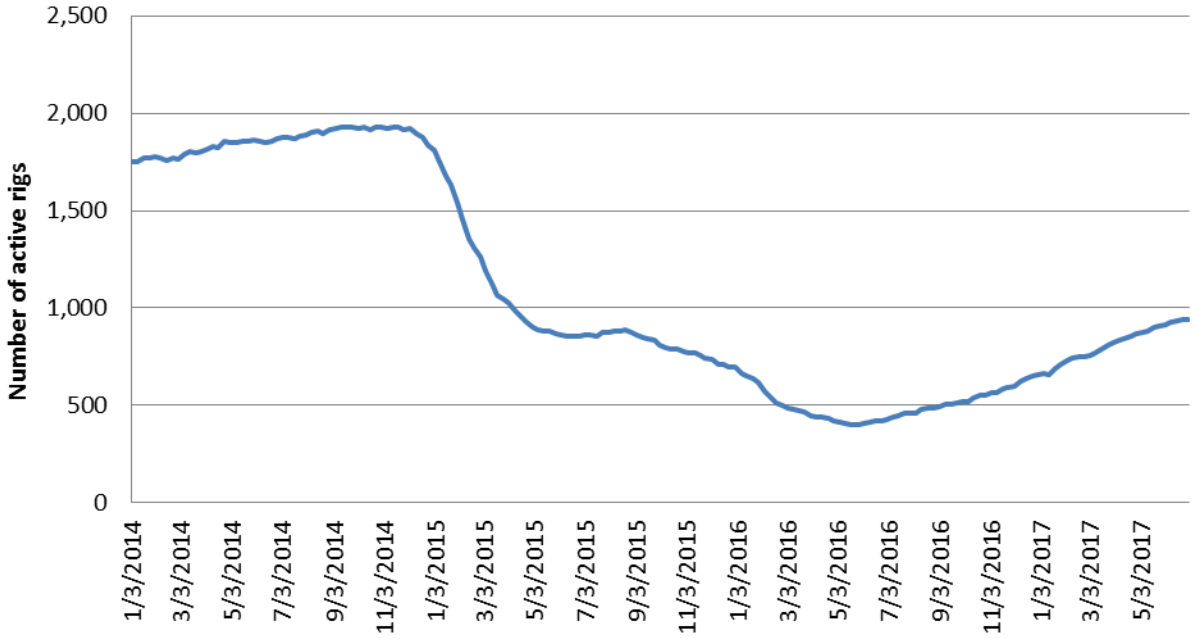
**Table II-3**
**Stainless steel flanges: Firms' responses regarding U.S. demand and demand outside the United States**

| Item | Increase | No change | Decrease | Fluctuate |
|---|---|---|---|---|
| Oil and gas demand inside the United States: | | | | |
| U.S. producers | --- | --- | 3 | --- |
| Importers | --- | 1 | 7 | 2 |
| Oil and gas demand outside the United States: | | | | |
| U.S. producers | --- | --- | 1 | --- |
| Importers | --- | 1 | 4 | 2 |
| Other sector demand inside the United States: | | | | |
| U.S. producers | --- | --- | 3 | --- |
| Importers | --- | 3 | 4 | 2 |
| Other sector demand outside the United States: | | | | |
| U.S. producers | --- | --- | 1 | --- |
| Importers | --- | 3 | 1 | 2 |

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

An indicator of the level of activity in the U.S. oil and gas sector is the number of active oil and gas rigs. As shown in figure II-1, the number of active rigs in the U.S. oil and gas sector peaked in late 2014 before declining substantially through mid-2016. Since mid-2016, the number of active U.S. rigs has gradually increased.

**Figure II-1**
**Stainless steel flanges: Number of active rigs in the U.S. oil and gas sector, by week, January 2014-June 2017**




Source: Baker Hughes, http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reportsother, retrieved September 22, 2017.

### Substitute products

All responding U.S. producers and importers reported that there were no substitutes for stainless steel flanges.

## SUBSTITUTABILITY ISSUES

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

### Lead times

Stainless steel flanges are primarily produced-to-order by U.S. producers and sold from inventory by importers. U.S. producers reported that *** of their commercial shipments were produced-to-order with lead times averaging *** days. Importers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days. The

remaining *** percent of importers' commercial shipments came from inventories, with lead times averaging *** days from U.S. inventories and *** days from foreign inventories.

### Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[7] were asked to identify the main factors their firm considered in their purchasing decisions for stainless steel flanges. The major purchasing factors identified by firms include price, quality, and delivery.

#### Supplier certification

The majority of U.S. producers reported that stainless steel flanges from suppliers on an approved manufacturers list (AML) are always interchangeable with those from suppliers not on the list even though they reported that the majority of their sales of stainless steel flanges were to customers that have AMLs. The petitioner stated at the staff conference that AMLs have little impact on the U.S. market now for multiple reasons: the majority of sales are not subject to AMLs, importers and converters that use subject imports are themselves on the AMLs, and purchasers will buy from unapproved suppliers if the price is low enough or if stainless steel flanges are not available from an approved supplier.[8] Five of nine importers reported that stainless steel flanges from suppliers on AMLs are always or usually interchangeable with stainless steel flanges from suppliers not on the list, whereas the other four importers reported that stainless steel flanges from suppliers not on an AML are never or sometimes interchangeable with those from suppliers on the AML.

### Comparison of U.S.-produced and imported stainless steel flanges

In order to determine whether U.S.-produced stainless steel flanges can generally be used in the same applications as imports from China and India, U.S. producers and importers were asked whether the products can "always", "frequently", "sometimes", or "never" be used interchangeably. As shown in table II-4, U.S. producers reported that domestically produced stainless steel flanges are "always" or "frequently" interchangeable with stainless steel flanges from subject and nonsubject sources in all but two instances. Most importers reported that domestically produced stainless steel flanges were "always" or "frequently" interchangeable with those from subject and nonsubject sources. Producers and importers reported that stainless steel flanges made to the prescribed specifications were interchangeable.

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

[8] Conference transcript, pp. 12 and 53 (Maass).

**Table II-4**
**Stainless steel flanges: Interchangeability between stainless steel flanges produced in the United States and in other countries, by country pair**

| Country pair | Number of U.S. producers reporting | | | | Number of U.S. importers reporting | | | |
|---|---|---|---|---|---|---|---|---|
| | A | F | S | N | A | F | S | N |
| **U.S. vs. subject countries:** | | | | | | | | |
| U.S. vs. China | 1 | 1 | --- | --- | 5 | 3 | 1 | --- |
| U.S. vs. India | 1 | 1 | 1 | --- | 4 | 2 | 3 | --- |
| **Subject countries comparisons:** | | | | | | | | |
| China vs. India | 1 | 1 | --- | --- | 5 | 3 | --- | --- |
| **Nonsubject countries comparisons:** | | | | | | | | |
| U.S. vs. nonsubject | 1 | 1 | 1 | --- | 4 | 3 | 2 | --- |
| China vs. nonsubject | 1 | 1 | --- | --- | 4 | 3 | 1 | --- |
| India vs. nonsubject | 1 | 1 | --- | --- | 5 | 2 | 1 | --- |

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

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

In addition, producers and importers were asked to assess how often differences other than price were significant in sales of stainless steel flanges from the United States, subject, or nonsubject countries. As seen in table II-5, U.S. producers reported that factors other than price were “never” or “sometimes” significant with one exception. The majority of importers also responded that factors other than price were “never” or “sometimes” significant in purchasing decisions.

**Table II-5**
**Stainless steel flanges: Significance of differences other than price between stainless steel flanges produced in the United States and in other countries, by country pair**

| Country pair | Number of U.S. producers reporting | | | | Number of U.S. importers reporting | | | |
|---|---|---|---|---|---|---|---|---|
| | A | F | S | N | A | F | S | N |
| **U.S. vs. subject countries:** | | | | | | | | |
| U.S. vs. China | --- | --- | 1 | 1 | --- | 2 | 2 | 5 |
| U.S. vs. India | --- | --- | 1 | 2 | --- | 2 | 2 | 4 |
| **Subject countries comparisons:** | | | | | | | | |
| China vs. India | --- | --- | 1 | 1 | 1 | --- | 3 | 3 |
| **Nonsubject countries comparisons:** | | | | | | | | |
| U.S. vs. nonsubject | --- | 1 | 1 | 1 | --- | 1 | 3 | 3 |
| China vs. nonsubject | --- | --- | 1 | 1 | --- | 2 | 1 | 3 |
| India vs. nonsubject | --- | --- | 1 | 1 | --- | 1 | 2 | 3 |

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

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

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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of three firms that accounted for *** percent of integrated U.S. production of stainless steel flanges during 2016[1] and the majority of nonintegrated stainless steel flanges finishing production operations.[2]

## U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 30 firms based on information contained in the petition and other sources. Three firms provided usable data on their production operations.[3] [4] Staff believes that these responses represent the majority of U.S. production of stainless steel flanges.[5]

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

---

[1] Petition, p. 3 and exhs. 3–4.

[2] Petition, exh. 2. The Petition identified Core and Kerkau as the only two non-integrated firms with stainless steel flange finishing operations in the United States. Staff, however, identified ***. Petitioners updated their characterization of U.S. stainless steel flange finishing operations describing Core Pipe and Kerkau as the "…two significant converters…" in the United States. Petitioners' postconference brief, p. 14.

[3] A number of U.S. producers and importers reported an inability to complete the questionnaires in time because of flooding in the Houston area caused by Hurricane Harvey during the last week of August 2017. See investigator phone log for August 21, 2017–September 25, 2017 and various emails from investigator to U.S. producers.

[4] *** provided certification that they were not U.S. producers of stainless steel flanges.

[5] Maass provided the following estimates of 2016 production shares of U.S. integrated producers:

- Maass (*** percent);
- Western Forge & Flange Co. ("Western Forge") (*** percent);
- AF Global Corporation ("Ameriforge") (*** percent);
- Western of Texas Forge & Flange Co. ("Western of Texas") (*** percent); and
- Newman Flange and Fitting Co. ("Newman Flange") (*** percent).

Response to the Department's Supplemental Questions, Volume 1, August 22, 2017, p. 6.

Staff received an incomplete questionnaire response from *** for stainless steel flanges.

**Table III-1**
**Stainless steel flanges: U.S. producers, their position on the petition, location of production, and share of reported production, 2016**

| Firm | Position on petition | Production location(s) | Share of production integrated (percent) | Share of non-integrated finishing operations (percent) |
|---|---|---|---|---|
| Core Pipe | Support | Carol Stream, IL | *** | *** |
| Kerkau | *** | Bay City, MI | *** | *** |
| Maass | Support | Sealy, TX<br>Houston, TX<br>Houston, TX | *** | *** |
| Total | | | *** | *** |

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

## Production-related activities

As discussed above, stainless steel flange production-related activity takes place in the United States takes place at both integrated operations and finishing operations. The following tabulation compares integrated operations and finishing operations based on: (1) source and extent of the firm's capital investment; (2) technical expertise involved in U.S. production activities; (3) value added to the product in the United States; (4) employment levels; (5) quantity and type of parts sourced in the United States; and (6) any other costs and activities in the United States directly leading to production of the like product.

* * * * * * *

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

**Table III-2**
**Stainless steel flanges: U.S. producers' ownership, related and/or affiliated firms**

* * * * * * *

As indicated in table III-2, two U.S. producers are related to foreign producers of the subject merchandise and one U.S. producer is related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, three U.S. producers directly import stainless steel flanges from China and/or India; two directly import from nonsubject sources; while none purchase from U.S. importers.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2014. In 2014 Maass founded Maass Ring & Forge of Houston, Texas, which is equipped with a 5,000 ton Open-Die Forge Press for seamless rolled rings.[6] Maass reported that this facility primarily ***.[7]

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

* * * * * * *

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

Table III-4 and figure III-1 present U.S. integrated producers' production, capacity, and capacity utilization. Maass is the only U.S. producer with forging and finishing capabilities to provide a timely and complete questionnaire response; consequently, the firm accounts for all data presented for "integrated" production in the following tables.[8] [9]

**Table III-4**
**Stainless steel flanges: Integrated U.S. producer's capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Figure III-1**
**Stainless steel flanges: Integrated U.S. producer's capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table III-5 and figure III-2 present U.S. non-integrated finishing capacity, production, and capacity utilization. Non-integrated finishing operations involve further processing of unfinished stainless steel flanges. As discussed in Part I of this report, finishing operations include but are not limited to, boring, facing, spot facing, drilling, tapering, threading, beveling, heating, or compressing.[10]

[6] Maass' website, http://www.maassrf.com/sites/site_20.html, retrieved September 6, 2017.
[7] Petitioners' postconference brief, exh. 1, p. 47.
[8] Ameriforge, Galperti , Newman Flange, Western Forge, and Western of Texas, are also believed to have integrated production capabilities. According to ***.
[9] A representative from ***. Email from Justin Enck to ***, September 7, 2017.
[10] In addition to the three U.S. producers with non-integrated finishing operations, ***.

**Table III-5**
**Stainless steel flanges: U.S. producers' non-integrated finishing capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Figure III-2**
**Stainless steel flanges: U.S. producers' non-integrated finishing capacity, production, and capacity utilization, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table III-6 presents U.S. producers' non-integrated finishing operations production and shipments by origin of forgings.

**Table III-6**
**Stainless steel flanges: U.S. producers' non-integrated finishing operations (production and U.S. shipments) by origin of forgings, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## Alternative products

As shown in table III-7, stainless steel flanges accounted for *** percent of production on forging machinery during 2014-16 and January to June 2017. Maass reported producing ***.

**Table III-7**
**Stainless steel flanges: U.S. producers' overall capacity and production on forging machinery, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

As shown in table III-8, stainless steel flanges accounted for *** percent of production on finishing machinery during 2014-16 and January to June 2017. Two firms reported producing *** on the same finishing machinery as stainless steel flanges.

**Table III-8**
**Stainless steel flanges: U.S. producers' overall capacity and production on finishing machinery, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

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

Table III-9 presents integrated U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. producers reported that they exported stainless steel flanges to ***.

**Table III-9**
**Stainless steel flanges: Integrated U.S. producers' U.S. shipments, export shipments, and total shipments, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table III-10 presents integrated U.S. producers' U.S. shipments, by type.

**Table III-10**
**Stainless steel flanges: Integrated U.S. producers' U.S. shipments, by type, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table III-11 presents U.S. producers' non-integrated finishing U.S. shipments, export shipments, and total shipments.

**Table III-11**
**Stainless steel flanges: U.S. producers' non-integrated finishing U.S. shipments, export shipments, and total shipments, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table III-12 presents consolidated U.S. producers' U.S. shipments for apparent consumption.

**Table III-12**
**Stainless steel flanges: Consolidated U.S. producers' U.S. shipments for apparent consumption, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## U.S. PRODUCERS' INVENTORIES

Table III-13 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.**

**Table III-13**
**Stainless steel flanges: U.S. producers' inventories, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports and purchases of stainless steel flanges are presented in table III-14. A representative from Maass testified that integrated U.S. producers like Ameriforge have shut down forging operations in favor of importing unfinished stainless steel flanges, which they ultimately finish in the United States.[11] Maass reported that it ***. Core Pipe reported that it ***.[12] Kerkau *** stainless steel flanges. Core Pipe and Maass ***.[13]

Kerkau's ***. Kerkau reported that ***.[14]

**Table III-14**
**Stainless steel flanges: U.S. producers' direct imports, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

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

Tables III-15, III-16, and III-17 present U.S. producers' employment-related data.

**Table III-15**
**Stainless steel flanges: Integrated U.S. producers' employment related data, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Table III-16**
**Stainless steel flanges: U.S. producers' non-integrated finishing employment related data, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Table III-17**
**Stainless steel flanges: U.S. producers' employment related data for all producers, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

[11] Conference transcript, pp. 10-11 (Maass).

[12] U.S. importers' questionnaire responses, II-4.

[13] In 2016, Maass imported *** stainless steel flanges. In 2016, Core Pipe imported *** stainless steel flanges. U.S. importers' questionnaire responses, II-5(b), II-6(b), and II-7(b).

[14] Kerkau's U.S. importers' questionnaire response, II-6(a).

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

## U.S. IMPORTERS

The Commission issued importer questionnaires to 31 firms believed to be importers of stainless steel flanges, as well as to all firms believed to produce stainless steel flanges.[1] Usable questionnaire responses were received from 12 companies, representing *** percent of U.S. imports from China, *** percent from India, and *** percent from nonsubject countries[2] under HTS subheadings 7307.21.10 and 7307.21.50 during 2016.[3] Table IV-1 lists all responding U.S. importers of stainless steel flanges from China, India, and other sources, their headquarters, and their shares of U.S. imports, in 2016.[4]

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

* * * * * * *

## U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of stainless steel flanges from China, India, and all other sources. The quantity of imports of stainless steel flanges from China decreased by 31.8 percent (2.5 million pounds) from 2014 to 2016, but was 7.9 percent (209,000 pounds) higher in January – June 2017 than in January – June 2016. The quantity of imports of stainless steel flanges from India decreased by 32.2 percent (8.4 million pounds) from 2014 to 2016, but was 10.1 percent (960,000 pounds) higher in January – June 2017 than in January – June 2016. The quantity of imports of stainless steel flanges from nonsubject sources increased by 3.9 percent (598,000 pounds) from 2014 to 2016, but was 7.2 percent (580,000 pounds) lower in January – June 2017 than in January – June 2016. The overall level of imports from all sources declined in both 2015 and 2016, and was nearly unchanged in January – June 2017 relative to January – June 2016.

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[1] The Commission issued questionnaires to firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of imports under HTS subheadings 7307.21.10 and 7307.21.50 in 2016.

[2] Tenneco Automotive Operating Co. ("Tenneco") ***. Staff made numerous attempts to contact ***. ***.

[3] Official import statistics overstate imports of in-scope stainless steel flanges because U.S. importers reported a small amount of imports of stainless steel flanges with nominal pipe size of less than 0.5 inches or greater than 24 inches (*** pounds in 2016).

[4] *** submitted partial U.S. importers' questionnaire responses that are not included in this report. *** in 2016. *** in 2016.

The following firms certified that they have not imported stainless steel flanges since January 1, 2014: ***.

**Table IV-2**
**Stainless steel flanges: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017**

| Item | Calendar year | | | January to June | |
|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016 | 2017 |
| | Quantity (1,000 pounds) | | | | |
| U.S. imports from.-- | | | | | |
| China | 7,928 | 7,186 | 5,409 | 2,646 | 2,855 |
| India | 26,114 | 23,333 | 17,705 | 9,484 | 10,444 |
| Subject sources | 34,042 | 30,519 | 23,114 | 12,130 | 13,299 |
| Canada | 1,908 | 2,794 | 4,262 | 2,066 | 1,613 |
| Philippines | 4,713 | 3,501 | 3,654 | 1,755 | 1,429 |
| Mexico | 1,376 | 1,376 | 1,797 | 741 | 1,170 |
| Italy | 1,578 | 1,036 | 1,336 | 772 | 380 |
| Japan | 424 | 1,215 | 1,015 | 510 | 528 |
| Germany | 1,312 | 1,766 | 984 | 448 | 786 |
| All other sources | 4,200 | 2,661 | 3,061 | 1,815 | 1,621 |
| Nonsubject sources | 15,511 | 14,349 | 16,109 | 8,107 | 7,527 |
| All import sources | 49,553 | 44,868 | 39,223 | 20,237 | 20,826 |
| | Value (1,000 dollars) | | | | |
| U.S. imports from.-- | | | | | |
| China | 27,477 | 22,869 | 18,066 | 9,007 | 9,520 |
| India | 66,842 | 57,066 | 33,431 | 18,920 | 20,078 |
| Subject sources | 94,320 | 79,936 | 51,497 | 27,928 | 29,599 |
| Canada | 5,882 | 7,150 | 7,537 | 3,737 | 3,105 |
| Philippines | 11,368 | 7,218 | 6,500 | 3,402 | 2,614 |
| Mexico | 6,760 | 5,159 | 5,678 | 2,541 | 2,930 |
| Italy | 7,604 | 5,590 | 6,781 | 3,508 | 2,173 |
| Japan | 3,346 | 7,094 | 7,063 | 3,424 | 3,745 |
| Germany | 9,665 | 11,078 | 7,550 | 4,061 | 3,532 |
| All other sources | 26,343 | 20,779 | 17,667 | 9,136 | 12,264 |
| Nonsubject sources | 70,968 | 64,068 | 58,776 | 29,809 | 30,363 |
| All import sources | 165,288 | 144,004 | 110,274 | 57,737 | 59,962 |
| | Unit value (dollars per pound) | | | | |
| U.S. imports from.-- | | | | | |
| China | 3.47 | 3.18 | 3.34 | 3.40 | 3.33 |
| India | 2.56 | 2.45 | 1.89 | 1.99 | 1.92 |
| Subject sources | 2.77 | 2.62 | 2.23 | 2.30 | 2.23 |
| Canada | 3.08 | 2.56 | 1.77 | 1.81 | 1.92 |
| Philippines | 2.41 | 2.06 | 1.78 | 1.94 | 1.83 |
| Mexico | 4.91 | 3.75 | 3.16 | 3.43 | 2.50 |
| Italy | 4.82 | 5.40 | 5.08 | 4.54 | 5.72 |
| Japan | 7.89 | 5.84 | 6.96 | 6.71 | 7.09 |
| Germany | 7.37 | 6.27 | 7.67 | 9.06 | 4.49 |
| All other sources | 6.27 | 7.81 | 5.77 | 5.03 | 7.57 |
| Nonsubject sources | 4.58 | 4.46 | 3.65 | 3.68 | 4.03 |
| All import sources | 3.34 | 3.21 | 2.81 | 2.85 | 2.88 |

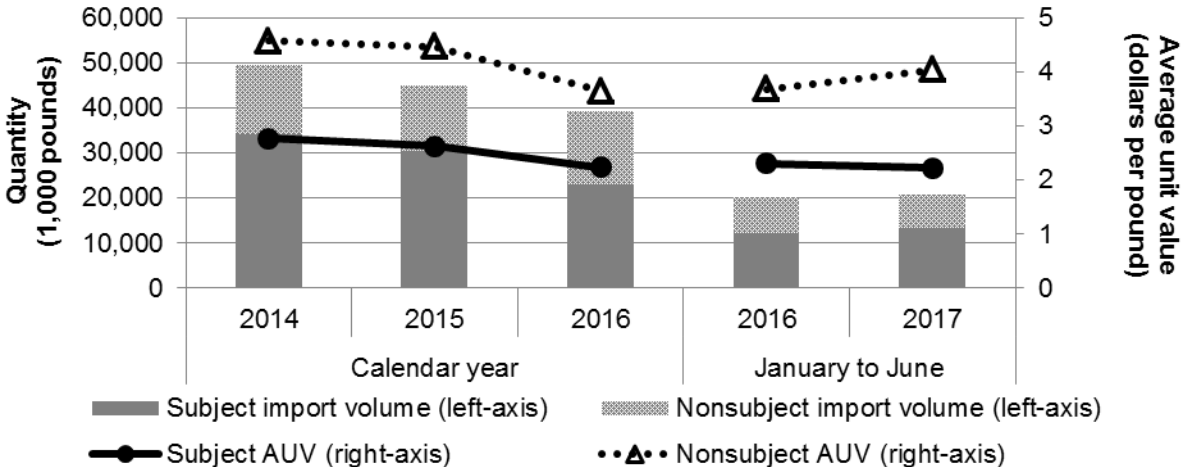
Table continued.

**Table IV-2--continued**
**Stainless steel flanges: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017**

| Item | Calendar year | | | January to June | |
|---|---|---|---|---|---|
| | 2014 | 2015 | 2016 | 2016 | 2017 |
| | Share of quantity (percent) | | | | |
| U.S. imports from.-- | | | | | |
| China | 16.0 | 16.0 | 13.8 | 13.1 | 13.7 |
| India | 52.7 | 52.0 | 45.1 | 46.9 | 50.2 |
| Subject sources | 68.7 | 68.0 | 58.9 | 59.9 | 63.9 |
| Canada | 3.9 | 6.2 | 10.9 | 10.2 | 7.7 |
| Philippines | 9.5 | 7.8 | 9.3 | 8.7 | 6.9 |
| Mexico | 2.8 | 3.1 | 4.6 | 3.7 | 5.6 |
| Italy | 3.2 | 2.3 | 3.4 | 3.8 | 1.8 |
| Japan | 0.9 | 2.7 | 2.6 | 2.5 | 2.5 |
| Germany | 2.6 | 3.9 | 2.5 | 2.2 | 3.8 |
| All other sources | 8.5 | 5.9 | 7.8 | 9.0 | 7.8 |
| Nonsubject sources | 31.3 | 32.0 | 41.1 | 40.1 | 36.1 |
| All import sources | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Share of value (percent) | | | | |
| U.S. imports from.-- | | | | | |
| China | 16.6 | 15.9 | 16.4 | 15.6 | 15.9 |
| India | 40.4 | 39.6 | 30.3 | 32.8 | 33.5 |
| Subject sources | 57.1 | 55.5 | 46.7 | 48.4 | 49.4 |
| Canada | 3.6 | 5.0 | 6.8 | 6.5 | 5.2 |
| Philippines | 6.9 | 5.0 | 5.9 | 5.9 | 4.4 |
| Mexico | 4.1 | 3.6 | 5.1 | 4.4 | 4.9 |
| Italy | 4.6 | 3.9 | 6.1 | 6.1 | 3.6 |
| Japan | 2.0 | 4.9 | 6.4 | 5.9 | 6.2 |
| Germany | 5.8 | 7.7 | 6.8 | 7.0 | 5.9 |
| All other sources | 15.9 | 14.4 | 16.0 | 15.8 | 20.5 |
| Nonsubject sources | 42.9 | 44.5 | 53.3 | 51.6 | 50.6 |
| All import sources | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| | Ratio to integrated U.S. production | | | | |
| U.S. imports from.-- | | | | | |
| China | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** |
| Canada | *** | *** | *** | *** | *** |
| Philippines | *** | *** | *** | *** | *** |
| Mexico | *** | *** | *** | *** | *** |
| Italy | *** | *** | *** | *** | *** |
| Japan | *** | *** | *** | *** | *** |
| Germany | *** | *** | *** | *** | *** |
| All other sources | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** |

Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

**Figure IV-1**
**Stainless steel flanges: U.S. imports, by source, 2014-16, January to June 2016, and January to June 2017**




Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

Table IV-3 presents data for U.S. imports of stainless steel flanges from China, India, and all other sources by type (finished versus unfinished).[5]

**Table IV-3**
**Stainless steel flanges: U.S. imports, by type, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Table IV-4 presents data for U.S. imports of stainless steel flanges from China, India, and all other sources since 1996. As noted in Part I of this report, stainless steel flanges from India were subject to antidumping duties from February 1994 until January 2011.[6]

[5] Unfinished stainless steel flanges that are not processed after forging enter under HTS statistical reporting number 7307.21.1000. Finished and semifinished stainless steel flanges enter under HTS statistical reporting number 7307.21.5000.

[6] *Antidumping Duty Order: Forged Stainless Steel Flanges From India and Taiwan*, 59 FR 5994, February 9, 1994 and *Forged Stainless Steel Flanges From India and Taiwan: Final Results of Sunset Reviews and Revocation of Antidumping Duty Orders*, 76 FR 5331, January 31, 2011.

**Table IV-4**
**Stainless steel flanges: U.S. imports, since 1996**

| Years | China | India | Subject Sources | Nonsubject sources | All sources |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 1996 | 441 | 608 | 1,048 | 17,153 | 18,201 |
| 1997 | 684 | 1,362 | 2,045 | 20,291 | 22,336 |
| 1998 | 931 | 2,264 | 3,195 | 21,083 | 24,278 |
| 1999 | 478 | 1,590 | 2,068 | 17,846 | 19,914 |
| 2000 | 614 | 2,324 | 2,937 | 25,246 | 28,184 |
| 2001 | 886 | 2,187 | 3,073 | 17,157 | 20,231 |
| 2002 | 915 | 2,886 | 3,801 | 20,599 | 24,400 |
| 2003 | 1,293 | 3,299 | 4,593 | 15,545 | 20,138 |
| 2004 | 1,894 | 5,688 | 7,582 | 15,743 | 23,325 |
| 2005 | 3,465 | 8,464 | 11,929 | 15,112 | 27,041 |
| 2006 | 5,764 | 11,847 | 17,611 | 16,251 | 33,862 |
| 2007 | 9,983 | 12,322 | 22,305 | 17,463 | 39,768 |
| 2008 | 9,814 | 10,960 | 20,774 | 13,836 | 34,611 |
| 2009 | 5,555 | 10,916 | 16,471 | 10,710 | 27,181 |
| 2010 | 7,032 | 10,947 | 17,979 | 10,287 | 28,266 |
| 2011 | 9,988 | 14,550 | 24,538 | 16,643 | 41,182 |
| 2012 | 13,973 | 27,201 | 41,174 | 18,627 | 59,801 |
| 2013 | 6,823 | 18,440 | 25,264 | 15,147 | 40,410 |
| 2014 | 7,928 | 26,114 | 34,042 | 15,511 | 49,553 |
| 2015 | 7,186 | 23,333 | 30,519 | 14,349 | 44,868 |
| 2016 | 5,409 | 17,705 | 23,114 | 16,109 | 39,223 |
| | Value (1,000 dollars) | | | | |
| 1996 | 833 | 1,042 | 1,875 | 44,223 | 46,098 |
| 1997 | 1,182 | 2,168 | 3,350 | 50,772 | 54,122 |
| 1998 | 1,299 | 3,087 | 4,386 | 47,448 | 51,834 |
| 1999 | 855 | 2,360 | 3,215 | 36,033 | 39,248 |
| 2000 | 905 | 2,876 | 3,781 | 49,724 | 53,505 |
| 2001 | 790 | 2,303 | 3,093 | 31,995 | 35,088 |
| 2002 | 1,497 | 3,168 | 4,665 | 36,773 | 41,438 |
| 2003 | 2,150 | 5,226 | 7,376 | 33,788 | 41,164 |
| 2004 | 3,129 | 12,796 | 15,925 | 43,563 | 59,488 |
| 2005 | 7,426 | 23,945 | 31,371 | 52,755 | 84,126 |
| 2006 | 14,775 | 32,677 | 47,452 | 55,799 | 103,251 |
| 2007 | 38,626 | 48,493 | 87,119 | 76,147 | 163,266 |
| 2008 | 36,532 | 40,936 | 77,468 | 66,958 | 144,426 |
| 2009 | 14,423 | 26,837 | 41,260 | 45,546 | 86,806 |
| 2010 | 18,128 | 26,030 | 44,158 | 41,501 | 85,659 |
| 2011 | 35,970 | 44,416 | 80,386 | 69,273 | 149,659 |
| 2012 | 46,374 | 94,183 | 140,557 | 81,267 | 221,824 |
| 2013 | 23,431 | 52,905 | 76,336 | 67,224 | 143,560 |
| 2014 | 27,478 | 66,842 | 94,320 | 70,968 | 165,288 |
| 2015 | 22,870 | 57,066 | 79,936 | 64,068 | 144,004 |
| 2016 | 18,066 | 33,431 | 51,497 | 58,777 | 110,274 |

Source: Compiled from official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 14, 2017.

## NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[7] Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[8] Imports from China accounted for 14.9 percent and imports from India accounted for 45.9 percent of total imports of stainless steel flanges by quantity in the 12 month period preceding the filing of the petition (table IV-5).

**Table IV-5**
**Stainless steel flanges: U.S. imports in the twelve month period preceding the filing of the petition**

| Item | August 2016 to July 2017 | |
|---|---|---|
| | Quantity (1,000 pounds) | Share of quantity (percent) |
| China | 5,815 | 14.9 |
| India | 17,902 | 45.9 |
| Subject sources | 23,716 | 60.8 |
| Nonsubject sources | 15,310 | 39.2 |
| All import sources | 39,026 | 100.0 |

Source: Compiled from official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

[7] 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)).

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

## CUMULATION CONSIDERATIONS

In assessing whether imports should be cumulated, the Commission determines whether U.S. imports from the subject countries compete with each other and with the domestic like product and has generally considered four factors: (1) fungibility, (2) presence of sales or offers to sell in the same geographical markets, (3) common or similar channels of distribution, and (4) simultaneous presence in the market. Information regarding channels of distribution, market areas, and interchangeability appear in Part II. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

### Fungibility

Staff collected data from U.S. producers and importers regarding shipments of finished and unfinished stainless steel flanges which are presented in table IV-6 and figure IV-2. Unfinished stainless steel flanges include both forgings and semifinished flanges (i.e., stainless steel flanges that have undergone some machining by a CNC lathe but require additional machining for their intended end use). Finished stainless steel flanges have undergone all machining necessary for their intended end use.[9]

**Table IV-6**
**Stainless steel flanges: U.S. producers' U.S shipments and U.S. importers' U.S. imports, by type and source, 2016**

* * * * * * *

**Figure IV-2**
**Stainless steel flanges: U.S. producers' U.S shipments and U.S. importers' U.S. imports, by type and source, 2016**

***** ***** ***** ***** ***** ***** *****

### Presence in the market

Table IV-7, figure IV-3, and figure IV-4 present U.S. imports of stainless steel flanges by source and month of entry. Subject imports from China and India entered the United States in every month from January 2014 to June 2017.

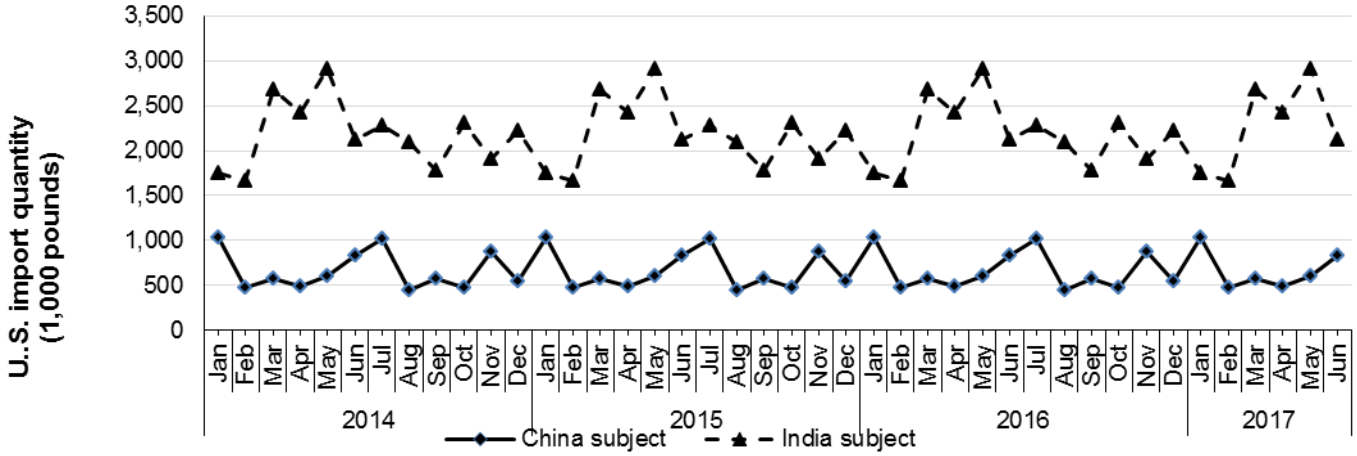
[9] Finishing processes include drilling bolt holes, drilling ID holes, imprinting markings with the manufacturer's emblem, nominal pipe size, pressure class, material grade and heat number. Conference transcript, pp. 16-17 (Maass).

**Table IV-7**
**Stainless steel flanges: U.S. imports by source and month of entry, January 2014-June 2017**

| Month of entry | China | India | Subject | Nonsubject | Total |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| 2014.-- | | | | | |
| January | 1,034 | 1,746 | 2,780 | 1,405 | 4,185 |
| February | 475 | 1,664 | 2,139 | 942 | 3,081 |
| March | 576 | 2,684 | 3,259 | 2,228 | 5,488 |
| April | 488 | 2,424 | 2,912 | 1,337 | 4,249 |
| May | 599 | 2,910 | 3,509 | 937 | 4,445 |
| June | 838 | 2,117 | 2,955 | 875 | 3,830 |
| July | 1,016 | 2,274 | 3,289 | 1,230 | 4,519 |
| August | 443 | 2,095 | 2,539 | 1,618 | 4,157 |
| September | 574 | 1,772 | 2,346 | 1,444 | 3,790 |
| October | 471 | 2,302 | 2,773 | 1,180 | 3,953 |
| November | 875 | 1,907 | 2,781 | 1,476 | 4,258 |
| December | 541 | 2,219 | 2,760 | 839 | 3,599 |
| 2015.-- | | | | | |
| January | 787 | 2,597 | 3,385 | 1,418 | 4,803 |
| February | 482 | 2,151 | 2,633 | 1,170 | 3,803 |
| March | 617 | 2,600 | 3,216 | 1,158 | 4,374 |
| April | 848 | 2,262 | 3,110 | 1,211 | 4,321 |
| May | 625 | 1,631 | 2,256 | 1,035 | 3,292 |
| June | 867 | 1,814 | 2,681 | 1,689 | 4,370 |
| July | 384 | 1,725 | 2,109 | 1,141 | 3,250 |
| August | 477 | 1,570 | 2,046 | 1,017 | 3,064 |
| September | 382 | 1,606 | 1,988 | 1,222 | 3,210 |
| October | 556 | 2,078 | 2,633 | 1,108 | 3,741 |
| November | 521 | 1,832 | 2,353 | 985 | 3,338 |
| December | 642 | 1,466 | 2,108 | 1,195 | 3,303 |
| 2016.-- | | | | | |
| January | 583 | 1,586 | 2,169 | 938 | 3,108 |
| February | 330 | 1,359 | 1,689 | 1,512 | 3,201 |
| March | 317 | 2,073 | 2,390 | 1,496 | 3,886 |
| April | 525 | 1,517 | 2,042 | 1,594 | 3,636 |
| May | 471 | 1,447 | 1,918 | 1,216 | 3,135 |
| June | 420 | 1,502 | 1,921 | 1,352 | 3,273 |
| July | 449 | 2,846 | 3,295 | 1,251 | 4,546 |
| August | 567 | 798 | 1,365 | 1,423 | 2,788 |
| September | 593 | 919 | 1,512 | 1,313 | 2,825 |
| October | 223 | 972 | 1,195 | 1,432 | 2,628 |
| November | 496 | 1,439 | 1,935 | 1,141 | 3,076 |
| December | 434 | 1,247 | 1,681 | 1,442 | 3,123 |
| 2017.-- | | | | | |
| January | 447 | 1,288 | 1,735 | 1,596 | 3,331 |
| February | 583 | 1,575 | 2,157 | 1,042 | 3,199 |
| March | 253 | 1,322 | 1,574 | 1,331 | 2,906 |
| April | 370 | 1,992 | 2,363 | 1,142 | 3,505 |
| May | 518 | 2,340 | 2,857 | 1,494 | 4,352 |
| June | 684 | 1,928 | 2,613 | 921 | 3,533 |

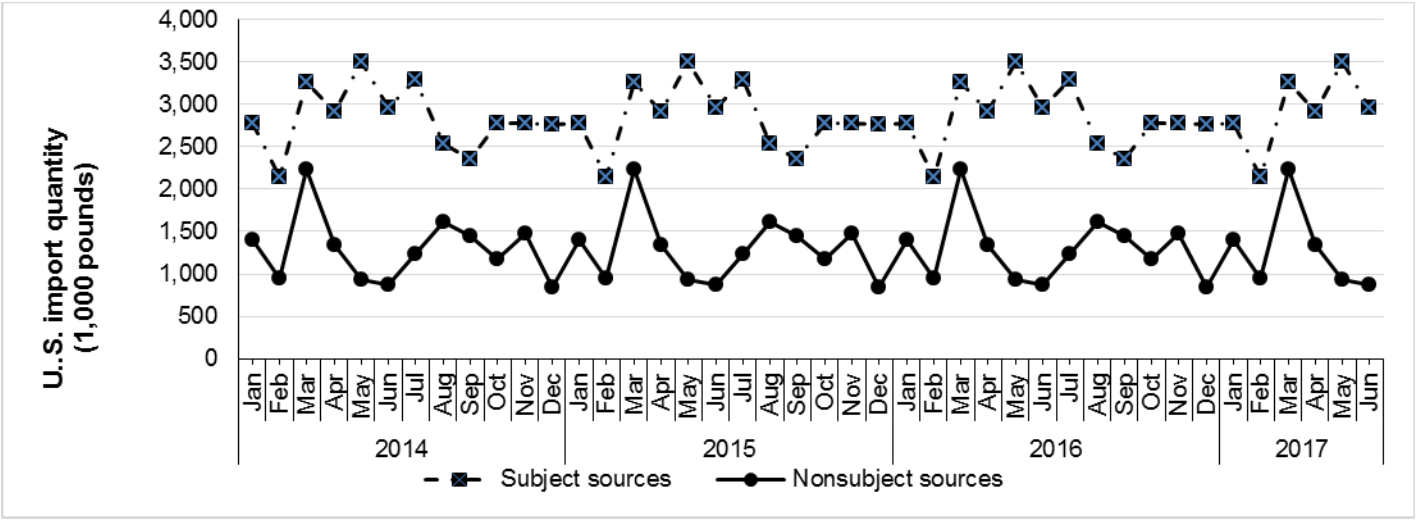
Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

**Figure IV-3**
**Stainless steel flanges: Subject U.S. imports by source and month of entry, January 2014-June 2017**




Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

**Figure IV-4**
**Stainless steel flanges: U.S. imports by source and month of entry, January 2014-June 2017**




Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

## Geographical markets

Table IV-8 presents U.S. imports of stainless steel flanges by source and border of entry. Each border of entry includes imports of stainless steel flanges from the following customs districts.

- **East:** Baltimore, MD; Boston, MA; Buffalo, NY; Charleston, SC; Charlotte, NC; New York, NY; Norfolk, VA; Ogdensburg, NY; Philadelphia, PA; Portland, ME; San Juan, PR; Savannah, GA; St. Albans, VT; Washington, DC.
- **North:** Chicago, IL; Cleveland, OH; Detroit, MI; Great Falls, MT; Milwaukee, WI; Minneapolis, MN; Pembina, ND; St. Louis, MO.
- **South:** Dallas-Fort Worth, TX; El Paso, TX; Houston-Galveston, TX; Laredo, TX; Miami, FL; Mobile, AL; New Orleans, LA; Port Arthur, TX; Tampa, FL.
- **West:** Anchorage, AK; Columbia-Snake, OR; Honolulu, HI; Los Angeles, CA; Nogales, AZ; San Diego, CA; San Francisco, CA; Seattle, WA.

**Table IV-8**
**Stainless steel flanges: U.S. imports, by source and border of entry, 2016**

| Item | East | North | South | West | Total |
|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | |
| U.S. imports from.-- China subject | 714 | 1,737 | 1,280 | 1,678 | 5,409 |
| India subject | 5,020 | 5,377 | 5,829 | 1,479 | 17,705 |
| Subject sources | 5,734 | 7,114 | 7,109 | 3,157 | 23,114 |
| Canada | 28 | 4,232 | 2 | 0 | 4,262 |
| Philippines | 798 | 908 | 1,162 | 785 | 3,654 |
| Mexico | 0 | 1 | 1,796 | 0 | 1,797 |
| Italy | 38 | 328 | 957 | 14 | 1,336 |
| Japan | 9 | 986 | 4 | 16 | 1,015 |
| Germany | 369 | 266 | 346 | 3 | 984 |
| All other sources | 494 | 794 | 1,498 | 276 | 3,062 |
| Nonsubject sources | 1,735 | 7,514 | 5,765 | 1,095 | 16,109 |
| All import sources | 7,469 | 14,627 | 12,875 | 4,252 | 39,223 |
| | Share across (percent) | | | | |
| U.S. imports from.-- China subject | 13.2 | 32.1 | 23.7 | 31.0 | 100.0 |
| India subject | 28.4 | 30.4 | 32.9 | 8.4 | 100.0 |
| Subject sources | 24.8 | 30.8 | 30.8 | 13.7 | 100.0 |
| Canada | 0.6 | 99.3 | 0.1 | 0.0 | 100.0 |
| Philippines | 21.8 | 24.9 | 31.8 | 21.5 | 100.0 |
| Mexico | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 |
| Italy | 2.8 | 24.6 | 71.6 | 1.0 | 100.0 |
| Japan | 0.9 | 97.1 | 0.3 | 1.6 | 100.0 |
| Germany | 37.5 | 27.0 | 35.2 | 0.3 | 100.0 |
| All other sources | 16.1 | 25.9 | 48.9 | 9.0 | 100.0 |
| Nonsubject sources | 10.8 | 46.6 | 35.8 | 6.8 | 100.0 |
| All import sources | 19.0 | 37.3 | 32.8 | 10.8 | 100.0 |
| | Share down (percent) | | | | |
| U.S. imports from.-- China subject | 9.6 | 11.9 | 9.9 | 39.5 | 13.8 |
| India subject | 67.2 | 36.8 | 45.3 | 34.8 | 45.1 |
| Subject sources | 76.8 | 48.6 | 55.2 | 74.3 | 58.9 |
| Canada | 0.4 | 28.9 | 0.0 | 0.0 | 10.9 |
| Philippines | 10.7 | 6.2 | 9.0 | 18.5 | 9.3 |
| Mexico | 0.0 | 0.0 | 14.0 | 0.0 | 4.6 |
| Italy | 0.5 | 2.2 | 7.4 | 0.3 | 3.4 |
| Japan | 0.1 | 6.7 | 0.0 | 0.4 | 2.6 |
| Germany | 4.9 | 1.8 | 2.7 | 0.1 | 2.5 |
| All other sources | 6.6 | 5.4 | 11.6 | 6.5 | 7.8 |
| Nonsubject sources | 23.2 | 51.4 | 44.8 | 25.7 | 41.1 |
| All import sources | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000, accessed September 8, 2017.

## APPARENT U.S. CONSUMPTION AND MARKET SHARES

Tables IV-9 and IV-10 present data on apparent U.S. consumption and U.S. market shares for stainless steel flanges excluding U.S. non-integrated finishing firms. Apparent consumption, excluding U.S. non-integrated finishing firms, decreased by *** percent from 2014 to 2016. Maass attributes the decline primary to decreased capital expenditures in major end use markets for stainless steel flanges, particularly, oil refining.[10] Maass estimated that *** percent of the like product is used in the oil refining industry.[11]

**Table IV-9**
**Stainless steel flanges: Apparent U.S. consumption excluding U.S. non-integrated finishing firms, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Table IV-10**
**Stainless steel flanges: U.S. market shares excluding U.S. non-integrated finishing firms, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

Tables IV-11 and IV-12 present data on apparent U.S. consumption and U.S. market shares for stainless steel flanges including U.S. non-integrated finishing firms.

**Table IV-11**
**Stainless steel flanges: U.S. market shares including U.S. non-integrated finishing firms, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

**Table IV-12**
**Stainless steel flanges: U.S. market shares including U.S. non-integrated finishing firms, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

[10] Petitioners' postconference brief, exh. 1, pp. 32-34.
[11] Ibid., p. 32.

# PART V: PRICING DATA

## FACTORS AFFECTING PRICES

### Raw material costs

The raw material for stainless steel forgings and flanges produced from forgings is stainless steel billet or bar. This raw material is heated and then forged into the general shape of a flange. Finishers, in turn, utilize forgings or semifinished flanges as their primary raw materials. The prices for two types of stainless steel (304 and 316) that are commonly used to make stainless steel flanges declined since peaking in mid-2014 (figure V-1).

**Figure V-1**
**Stainless steel flanges: Raw material prices for type 304 and type 316 stainless steel, by months, January 2014-June 2017**

* * * * * * *

Raw materials as a share of cost of goods sold ("COGS") on a consolidated basis for all reporting U.S. producers declined from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2017. Maass, the integrated U.S. producer, reported that raw materials as a share of cost of goods sold ("COGS") declined from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2017. Raw materials as a share of COGS for the finishers declined from *** percent in 2014 to *** percent in 2016 and was *** percent in interim 2017.[1] All three U.S. producers and seven of 11 importers reported a downward trend in raw material prices. Four importers reported that raw material prices have fluctuated without a clear trend.

### U.S. inland transportation costs

*** and 11 of 12 responding importers reported that they typically arrange transportation to their customers. *** reported that their U.S. inland transportation costs ranged from *** to *** percent while most importers reported costs of *** to *** percent.

[1] Raw materials as a share of COGS in interim 2016 was *** percent on a consolidated basis, *** percent for Maass, and *** percent for the finishers.

## PRICING PRACTICES

### Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists. As presented in table V-1, integrated U.S. producers, finishers, and importers sell primarily through transaction-by-transaction negotiations. Contracts are the least common method used.

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

| Method | U.S. producers | Importers |
|---|---|---|
| **Transaction-by-transaction** | 2 | 10 |
| **Contract** | 2 | 3 |
| **Set price list** | 2 | 5 |
| **Other** | --- | --- |
| **Responding firms** | 3 | 12 |

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

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

*** and importers reported selling the vast majority of their stainless steel flanges on the spot market. As shown in table V-2, integrated U.S. producers, finishers, and importers reported their 2016 U.S. commercial shipments of stainless steel flanges by type of sale.

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

* * * * * * *

*** reported selling only on the spot market. ***, however, reported selling most of its stainless steel flanges on the spot market but also sold product via short-term contracts (average duration of *** days), annual contracts, and long-term contracts (average duration of *** years). *** generally fixes price and does not renegotiate it (except on long-term contracts) and does not have meet-or-release provisions.

Four importers reported selling stainless steel flanges via short-term contracts with average durations ranging from *** to *** days. One importer also reported using annual contracts as well as long-term contracts with an average duration of *** years. Importers generally fix both price and quantity, do not renegotiate price (except on long-term contracts), and do not have meet-or-release provisions.

Purchasers responding to lost sales and lost revenue allegations provided a general description of their firms' method of purchase for stainless steel flanges, including bids, contracts, and/or individual purchases.

### Sales terms and discounts

*** U.S. producer, reported typically quoting prices on a delivered basis. Responding importers were fairly evenly split between typically quoting prices on an f.o.b. and a delivered basis. *** reported terms of net 30 days. One producer reported that it did not provide any discounts. The other two producers reported offering quantity or total volume discounts. *** also reported offering terms of 2/10 to certain customers.

Eleven of 12 responding importers reported using terms of net 30 days. Additionally, two offer net 60, one offers 2/10 net 30, and two offer other terms (***). Over half of importers reported offering no discounts, but four offer quantity discounts, and three offer total volume discounts.

## PRICE DATA

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

**Product 1.**-- Weld-Neck stainless steel flanges, finished, 2-inch nominal pipe size, class 150, of 316/316L alloy steel meeting ASME/ANSI B16.5 specifications.

**Product 2.**-- Slip-On stainless steel flanges, finished, 4-inch nominal pipe size, class 150, of 304/304L alloy steel meeting ASME/ANSI B16.5 specifications.

**Product 3.**-- Slip-On stainless steel flanges, finished, 6-inch nominal pipe size, class 150, of 304/304L alloy steel meeting ASME/ANSI B16.5 specifications.

Integrated U.S. producer Maass[2] and 10 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 value of U.S. producers' shipments of product, *** percent of the value of U.S. shipments of subject imports from China, and *** percent of U.S. shipments of the value of subject imports from India in 2016.

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

[2] Data reported are by Maass for its integrated operations. Accordingly, all U.S. sales are of flanges ***.

[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.

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

* * * * * * *

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

* * * * * * *

**Table V-5**
**Stainless steel flanges: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarters, January 2014-June 2017**

* * * * * * *

**Figure V-2**
**Stainless steel flanges: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014-June 2017**

* * * * * * *

**Figure V-3**
**Stainless steel flanges: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014-June 2017**

* * * * * * *

**Figure V-4**
**Stainless steel flanges: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2014-June 2017**

* * * * * * *

## Price trends

In general, prices decreased during January 2014-June 2017. Table V-6 summarizes the price trends, by product and by country. As shown in the table, domestic price declines ranged from *** to *** percent during January 2014-June 2017 while import price decreases ranged from *** to *** percent.

**Table V-6**
**Stainless steel flanges: Summary of weighted-average f.o.b. prices for products 1-3 from the United States, China, and India**

* * * * * * *

## Price comparisons

As shown in table V-7, prices for stainless steel flanges imported from China and India were below those for U.S.-produced product in 78 of 80 instances (279,062 pieces). The margins of underselling ranged from 10.7 to 71.2 percent. In the other two instances (*** pieces), the margins of overselling ranged from *** to *** percent.

**Table V-7**
**Stainless steel flanges: Instances of underselling/overselling and the range and average of margins, by country, January 2014-June 2017**

| Source | Underselling | | | | |
|---|---|---|---|---|---|
| | Number of quarters | Quantity[1] (pieces) | Average margin (percent) | Margin range (percent) | |
| | | | | Min | Max |
| China | 40 | *** | *** | *** | *** |
| India | 38 | *** | *** | *** | *** |
| Total | 78 | 279,062 | 57.0 | 10.7 | 71.2 |
| Source | (Overselling) | | | | |
| | Number of quarters | Quantity[1] (pieces) | Average margin (percent) | Margin range (percent) | |
| | | | | Min | Max |
| China | 0 | 0 | --- | --- | --- |
| India | 2 | *** | *** | *** | *** |
| Total | 2 | *** | *** | *** | *** |

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

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

## LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of stainless steel flanges report purchasers where they experienced instances of lost sales or revenue due to competition from imports of stainless steel flanges from China and India during January 2014–June 2017. Two of three responding U.S. producers reported that they had to either reduce prices or roll back announced price increases, and both firms reported that they had lost sales. Both petitioners

submitted lost sales and lost revenue allegations and identified *** firms where they lost sales or revenue (all consisting of ***). *** reported that its allegations occurred ***.[4]

Staff contacted *** purchasers and received responses from four purchasers. Responding purchasers reported purchasing and/or directly importing *** pounds of stainless steel flanges during 2014-16. Table V-8 presents the purchases and direct imports reported by responding purchasers in 2016.

**Table V-8**
**Stainless steel flanges: Purchasers' purchases and direct imports, 2016**

* * * * * * *

During 2016, responding purchasers purchased *** percent from U.S. producers, purchased or imported less than one percent from China, *** percent from India, *** percent from nonsubject countries, and purchased *** percent from "unknown source" countries.[5] Of the responding purchasers, two reported no change in domestic purchases and one reported fluctuating domestic purchases. *** reported increasing purchases of Chinese-produced stainless steel flanges that was project driven and *** reported increasing purchases of Indian-produced stainless steel flanges due to recovery in demand. *** reported decreasing purchases of Indian produced stainless steel flanges because it shifted purchases to a supplier in the Philippines.

Of the four responding purchasers, one reported that, since January 2014, it had purchased stainless steel flanges from China and three reported that they had purchased stainless steel flanges from India instead of U.S.-produced product. All three purchasers reported that prices of imports from India were lower than U.S.-produced product, and all three of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Two purchasers estimated the quantity of stainless steel flanges from India purchased instead of domestic product; quantities ranged from *** pounds to *** pounds (tables V-9 and V-10). Purchaser *** reported that the Indian products most likely displaced other imports more so than domestically produced products. Purchaser *** stated that, as a general practice, it does not purchase from China "instead" of domestic product, but that it does so at a customer's request, so it purchased without consideration of U.S. manufacturers.

[4] ***. It also reported "flanges" for product type while *** reported "stainless flanges." *** reported specific methods of sale.

[5] All four purchasers indicated that they did not know the source of some or all of the stainless steel flanges they purchased.

**Table V-9**
**Stainless steel flanges: Purchasers' responses to purchasing subject imports instead of domestic product, by firm**

* * * * * * *

**Table V-10**
**Stainless steel flanges: Purchasers' responses to purchasing subject imports instead of domestic product, by country**

| Source | Purchasers reporting subject instead of domestic | Purchasers reported that imports were priced lower | Purchasers reporting that price was a primary reason for shift | Quantity subject purchased (pounds) | Other reasons for purchasing subject rather than domestic |
|---|---|---|---|---|---|
| China | 1 | --- | --- | *** | 1 |
| India | 3 | 3 | 3 | *** | --- |
| All subject sources | 3 | 3 | 3 | *** | --- |

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

One of four responding purchasers reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from subject countries; three reported that they did not know. *** stated that if there were reductions by the domestic producers, it may have been tied to lower input costs and not an attempt to chase the Indian or Chinese prices because the cost gap between the domestic and Indian product was so great there was no use in trying to compete.

In responding to the lost sales lost revenue survey, one purchaser provided additional information on purchases and market dynamics. *** stated that purchases for 2014 through 2016 are not indicative of normal demand for flanges and that it is understood around the industry that distributors began de-stocking early 2014, which continued through the third quarter of 2016. It continued that there has been somewhat of a recovery in 2017 and that some inventory rebuilding has taken place.

# PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

## BACKGROUND

Three U.S. firms reported usable financial results on their stainless steel flange operations.[1] Maass, the only integrated stainless steel flange producer to report financial results to the Commission, also reported finisher-only financial results. Core Pipe and Kerkau are exclusively finishers.[2]

For the period as a whole, Maass accounted for *** of total consolidated stainless steel flanges sales quantity (*** percent), Kerkau accounted for *** percent, and Core Pipe accounted for *** percent.[3]

## OPERATIONS ON FLANGES

Income-and-loss data for the U.S. producer's integrated stainless steel flanges operations are presented in table VI-1. Table VI-2 presents corresponding changes in average per pound values. Income-and-loss data for U.S. producers' stainless steel flange finishing operations are presented in table VI-3. Table VI-4 presents corresponding changes in average per pound values. Income-and-loss data for U.S. producers' consolidated stainless steel flange operations are presented in table VI-5. Table VI-6 presents corresponding changes in average per pound values. Table VI-7 presents company-specific financial information.

**Table VI-1**
**Stainless steel flanges: Results of operations of the integrated U.S. producer, 2014-16, January-June 2016, and January-June 2017**

* * * * * * *

**Table VI-2**
**Stainless steel flanges: Changes in the integrated U.S. producer's average per pound values, January-June 2016, and January-June 2017**

* * * * * * *

**Table VI-3**
**Stainless steel flanges: Results of U.S. producers' finishing operations, 2014-16, January-June 2016, and January-June 2017**

* * * * * * *

---

[1] ***. USITC auditor notes (preliminary phase).

[2] Maass reported its financial results on a GAAP basis and for calendar-year annual periods. The Commission's preliminary phase questionnaire did not request finisher only U.S. producers to report accounting basis or specify annual reporting period.

[3] ***. As referenced here, "consolidated" refers to the U.S. industry's combined integrated and non-integrated finishing operations.

**Table VI-4**
**Stainless steel flanges: Changes in U.S. producers' average per pound values for finishing operations, January-June 2016, and January-June 2017**

* * * * * * *

**Table VI-5**
**Stainless steel flanges: Results of consolidated operations of U.S. producers, 2014-16, January-June 2016, and January-June 2017**

* * * * * * *

**Table VI-6**
**Stainless steel flanges: Changes in consolidated U.S. producers' average per pound values, January-June 2016, and January-June 2017**

* * * * * * *

**Table VI-7**
**Stainless steel flanges: Results of operations of U.S. producers, by firm, 2014-16, January-June 2016, and January-June 2017**

* * * * * * *

## Net sales

On a consolidated basis, stainless steel flanges sales quantity declined during 2014-16 and was also lower in interim 2017 compared to interim 2016 (see table VI-5). On a company-specific basis, the directional pattern of changes in sales quantity was mixed during the full-year period (see table VI-7); e.g., *** total sales quantity declined in 2015 and increased marginally in 2016 whereas *** sales quantity declined in each year.[4] All U.S. producers reported lower sales quantity in interim 2017 compared to interim 2016.

On a consolidated basis, the U.S. industry's average per pound sales value declined during 2014-16 and was higher in interim 2017 compared to interim 2016. *** reported the same directional pattern of declining average per pound sales values during 2014-16 followed by higher average per pound sales values in interim 2017 compared to interim 2016. In contrast, *** reported higher average per pound sales value in 2016 followed by lower average per pound sales value in interim 2017 compared to interim 2016.[5] On a company-specific basis, *** average per pound sales values, ***, were lower than the average per pound sales values

[4] ***. September 11, 2017 e-mail from counsel on behalf of *** to USITC auditor. At the Commission's staff conference, a Maass company official stated that the company's stainless steel flange product mix remained essentially the same throughout the period. Conference transcript (Maass), p. 63.

***. September 18, 2017 e-mail with attachment from *** to USITC auditor.

[5] ***. September 11, 2017 e-mail with attachment from counsel on behalf of *** to USITC auditor.

of the other U.S. producers. ***, whose financial results reflect their finishing operations, reported a broader range of higher average per pound sales values.

## Cost of goods sold

On a consolidated basis, raw material cost is the single largest component of stainless steel flange cost of goods sold (COGS), ranging from *** percent (2016) to *** percent (2014) (see table VI-5). Raw material costs associated with integrated production generally reflect purchased stainless steel billets or bars which are cut prior to forging. Finisher only operations consume purchased unfinished stainless steel flanges as the primary raw material input.[6] *** raw material costs as a share of total COGS ranged from *** percent (interim 2017) to *** percent (2015) (see table VI-1). In contrast and consistent with consuming a more finished raw material input, finisher only raw material costs as a share of total COGS ranged from *** percent (interim 2016) to *** percent (2014) (see table VI-3).

Consolidated average per pound raw material costs followed the same directional pattern as average per pound sales value: declining during 2014-16 and then higher in interim 2017 compared to interim 2016 (see table VI-5). Integrated average per pound raw material costs were lower compared to corresponding average per pound raw material costs for finisher only operations throughout the period (see table VI-1 and table VI-2). On a company-specific basis, the directional pattern of average per pound raw material costs was mixed (see table VI-7).[7]

Ranging from *** percent (2014) as a share of total COGS to *** percent (interim 2016), consolidated other factory costs was somewhat higher compared to consolidated direct labor, which ranged from *** percent (2015) to *** percent (interim 2016) (see table VI-5). Consistent with the greater degree of conversion from billet or bar to finished stainless steel flange, other factory costs was the second largest share of total COGS for Maass' integrated operations, ranging from *** percent (2015) to *** percent (interim 2017) (see table VI-1).[8] In contrast and with respect finisher only operations, direct labor was the second largest share of COGS, ranging from *** percent (2014) to *** percent (interim 2016) (see table VI-3).[9] For most of the period and notwithstanding variations in average per pound other factory costs and

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[6] The majority of raw material costs for non-integrated finishing operations consists of unfinished stainless steel flanges from China and India. The remainder consists of purchased unfinished stainless steel flanges from domestic and nonsubject sources (see table VI-3).

[7] *** (see also footnote 13). September 11, 2017 e-mail from counsel on behalf of *** to USITC auditor.

***. September 18, 2017 e-mail with attachment from *** to USITC auditor.

[8] ***. *** U.S. producer questionnaire, response to III-7. The Commission's preliminary phase questionnaire did not request finisher only U.S. producers to disclose the extent to which they purchased inputs from related suppliers.

[9] Estimated value added (total conversion costs (direct labor and other factory costs) as a share of total COGS) for non-integrated finishing operations ranged from *** percent (2014) to *** percent (interim 2016). Estimated value added for integrated operations ranged from *** percent (2015) to *** percent (interim 2017). USITC auditor notes (preliminary phase).

direct labor, changes in average per pound COGS, whether based on integrated, finisher only, or consolidated financial results, primarily reflect changes in average per pound raw material costs (see table VI-2, table VI-4, and table VI-6).[10] [11]

### Gross profit

On a consolidated basis, U.S. producers generated gross profit throughout the full-year and interim periods (see table VI-5). While integrated and finishing operations both generated gross profit, integrated financial results reflect lower gross profit ratios (total gross profit divided by total revenue) compared to finisher only operations (see table VI-1 and table VI-3). As noted above, average per pound sales values based on finisher only financial results were higher throughout the period compared to those of integrated operations.

### SG&A expenses and operating income or loss

Ranging from *** percent (2014) to *** percent (interim 2017), consolidated SG&A expense ratios (total SG&A expenses divided by total revenue) increased throughout the period (see table VI-5). SG&A expense ratios for integrated operations were somewhat lower compared to those of finisher only operations (see table VI-1 and table VI-3). To the extent that both integrated and non-integrated producers reported declines in the level of total SG&A expenses for most of the period, increasing SG&A expense ratios generally reflect larger declines in corresponding revenue.

On a consolidated basis, U.S. producers reported operating income throughout the period with the highest absolute level reported in 2015, followed by a modest decline in 2016 (see table VI-5). Consolidated operating income was also somewhat lower in interim 2017 compared to interim 2016. When considered separately, *** operating results were negative throughout the period (see table VI-1).[12] *** financial results were positive throughout the period with gross profit ratios exceeding SG&A expense ratios by relatively large amounts (see table VI-3).

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

The absolute level and directional pattern of consolidated operating income and net income differed somewhat during parts of the period (see table VI-5). While interest expense was reported for integrated and finisher only financial results, the levels were relatively small for both groups. In contrast with *** financial results, in which other expenses and other income were relatively small throughout the period, *** financial results include relatively large amounts of both other income in 2014 and 2015 and other expenses in 2015 (see table VI-1 and

[10] ***. September 11, 2017 e-mail with attachment from counsel on behalf of *** to USITC auditor
[11] ***. September 11, 2017 e-mail from counsel on behalf of *** to USITC auditor.
[12] ***. September 11, 2017 e-mail from counsel on behalf of *** to USITC auditor. ***. Ibid.

table VI-3).[13] For integrated and consolidated financial results, this generally explains the divergence between operating and net results in those years.

## CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-8 presents the U.S. producers' capital expenditures and research and development (R&D) expenses related to stainless steel flanges operations. As shown in table VI-8, *** U.S. producer reported R&D expenses during the period examined.

**Table VI-8**
**Stainless steel flanges: U.S. producers' capital expenditures and research and development (R&D) expenses, 2014-16, January-June 2016, and January-June 2017**

* * * * * * *

*** reported its highest level of capital expenditures in 2015, ***, and for the period as a whole accounted for the largest share of consolidated capital expenditures (*** percent).[14] ***, which reported capital expenditures for integrated operations only, accounted for *** percent of the period's consolidated capital expenditures and reported its highest level of capital expenditures, ***, in 2014.[15] *** reported capital expenditures of *** in 2014 and none for the remainder of the period. *** accounted for *** percent of the period's consolidated capital expenditures.[16]

## ASSETS AND RETURN ON ASSETS

Table VI-9 presents the U.S. producers' stainless steel flange-related total assets and return on assets.[17]

[13] ***. September 11, 2017 e-mail from counsel on behalf of *** to USITC auditor. ***. USITC auditor notes (preliminary phase).

[14] ***. *** U.S. producer questionnaire, response to V-8 (note 1).

[15] ***. *** U.S. producer questionnaire, response to III-13 (note 1).

[16] ***. *** U.S. producer questionnaire, response to V-8 (note 1).

[17] 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 assets which in many instances are not product specific. Accordingly, high-level allocation factors were likely required, to some extent, in order to report a total asset value specific to stainless steel flange operations. As such, it should be noted that the pattern of asset values reported can reflect changes in underlying asset account balances, as well as period-to-period variations in relevant allocation factors. The ability of U.S. producers to assign total asset values to discrete product lines affects the meaningfulness of calculated return on assets.

**Table VI-9**
**Stainless steel flanges: U.S. producers' total assets and return on assets, 2014-16**

* * * * * * *

## CAPITAL AND INVESTMENT

The Commission requested the U.S. producers of stainless steel flanges to describe any actual or potential negative effects on their return on investment or their growth, investment, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments as a result of imports of stainless steel flanges from China or India. Table VI-10 tabulates the U.S. producers' responses regarding actual negative effects on investment, growth and development, as well as anticipated negative effects. Table VI-11 presents U.S. producers' narrative responses regarding actual and anticipated negative effects on investment, growth and development.

**Table VI-10**
**Stainless steel flanges: Negative effects of imports from subject sources on investment, growth, and development since January 1, 2014**

* * * * * * *

**Table VI-11**
**Stainless steel flanges: Narrative responses of U.S. producers regarding actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2014**

* * * * * * *

# 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,*
>
> *(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,*

---

[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."

*(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 CHINA

The Commission issued foreign producers' or exporters' questionnaires to 72 firms believed to produce and/or export stainless steel flanges from China.[3] Usable responses to the Commission's questionnaire were received from two firms: Activa, Inc. and SBK Flange. Activa, Inc. reported it was an exporter only. SBK Flange reported it was related to U.S. producer and importer Core Pipe.

These firms' exports to the United States accounted for less than *** percent of U.S. imports of stainless steel flanges from China from 2014 to June 2017. According to estimates requested of the responding Chinese producer SBK Flange, the production of stainless steel flanges in China reported in this part of the report accounts for approximately *** percent of overall production of stainless steel flanges in China.

Table VII-1 presents information on the stainless steel flange operations of the responding producers in China and table VII-2 presents information on responding exporters.

**Table VII-1**
**Stainless steel flanges: Summary data on firms in China, 2016**

* * * * * * *

**Table VII-2**
**Stainless steel flanges: Summary data on resales exported to the United States by firms in China, 2016**

* * * * * * *

### Changes in operations

Producers and exporters were asked to report any changes in operations since January 1, 2014. As Table VII-3 presents the responses by the Chinese firms. ***, which is affiliated with ***, noted it may have "***."

**Table VII-3**
**Stainless steel flanges: Reported changes in operations by producers in China, since January 1, 2014**

* * * * * * *

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

## Operations on stainless steel flanges

Table VII-4 presents information on the stainless steel flanges operations of the responding producers and exporters in China.

**Table VII-4**
**Stainless steel flanges: Data on industry in China, 2014-16, January to June 2016, January to June 2017, and projection calendar years 2017 and 2018**

* * * * * * *

## Alternative products

As shown in table VII-5, the responding Chinese firm produced other products on the same equipment and machinery used to produce stainless steel flanges. The firm noted other actual or potential products included "***."

**Table VII-5**
**Stainless steel flanges: Overall capacity and production on the same equipment as in-scope production by producers in China, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## Exports

According to GTA, the leading export markets for all flanges made of stainless steel from China are Japan and Korea (table VII-6). During 2016, the United States was the fourth largest export market, accounting for 4.3 percent of total exports of all flanges made of stainless steel from China. Exports as reported by China Customs in table VII-6 (i.e., for HS subheading 7307.21) may include merchandise outside of the scope of the petition (i.e., stainless steel flanges less than 0.5 inches or greater than 24 inches).

**Table VII-6**
**Stainless steel flanges: Exports from China by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Exports from China to the United States | 11,736 | 5,621 | 5,346 |
| Exports from China to other major destination markets.-- | | | |
| Japan | 28,309 | 26,955 | 29,825 |
| Korea | 27,063 | 24,837 | 23,648 |
| Germany | 16,995 | 13,877 | 12,966 |
| Taiwan | 5,826 | 5,191 | 5,110 |
| Italy | 5,546 | 4,336 | 4,237 |
| Russia | 2,893 | 1,553 | 2,713 |
| Australia | 2,825 | 2,579 | 2,875 |
| Netherlands | 4,435 | 3,496 | 2,877 |
| All other destination markets | 44,712 | 36,397 | 35,400 |
| Total exports from China | 150,341 | 124,842 | 124,996 |
| | Value (1,000 dollars) | | |
| Exports from China to the United States | 30,633 | 17,095 | 13,865 |
| Exports from China to other major destination markets.-- | | | |
| Japan | 67,484 | 61,685 | 55,948 |
| Korea | 65,952 | 55,376 | 43,319 |
| Germany | 48,925 | 36,238 | 29,979 |
| Taiwan | 13,014 | 10,561 | 8,724 |
| Italy | 13,589 | 9,540 | 8,080 |
| Russia | 8,842 | 4,938 | 7,005 |
| Australia | 8,141 | 6,661 | 6,962 |
| Netherlands | 12,730 | 8,739 | 6,887 |
| All other destination markets | 116,118 | 102,178 | 81,086 |
| Total exports from China | 385,428 | 313,012 | 261,855 |

Table continued.

**Table VII-6—Continued**
**Stainless steel flanges: Exports from China by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per pound) | | |
| Exports from China to the United States | 2.61 | 3.04 | 2.59 |
| Exports from China to other major destination markets.-- | | | |
| Japan | 2.38 | 2.29 | 1.88 |
| Korea | 2.44 | 2.23 | 1.83 |
| Germany | 2.88 | 2.61 | 2.31 |
| Taiwan | 2.23 | 2.03 | 1.71 |
| Italy | 2.45 | 2.20 | 1.91 |
| Russia | 3.06 | 3.18 | 2.58 |
| Australia | 2.88 | 2.58 | 2.42 |
| Netherlands | 2.87 | 2.50 | 2.39 |
| All other destination markets | 2.60 | 2.81 | 2.29 |
| Total exports from China | 2.56 | 2.51 | 2.09 |
| | Share of quantity (percent) | | |
| Exports from China to the United States | 7.8 | 4.5 | 4.3 |
| Exports from China to other major destination markets.-- | | | |
| Japan | 18.8 | 21.6 | 23.9 |
| Korea | 18.0 | 19.9 | 18.9 |
| Germany | 11.3 | 11.1 | 10.4 |
| Taiwan | 3.9 | 4.2 | 4.1 |
| Italy | 3.7 | 3.5 | 3.4 |
| Russia | 1.9 | 1.2 | 2.2 |
| Australia | 1.9 | 2.1 | 2.3 |
| Netherlands | 2.9 | 2.8 | 2.3 |
| All other destination markets | 29.7 | 29.2 | 28.3 |
| Total exports from China | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HS subheading 7307.21 as reported by China Customs in the IHS/GTA database, accessed July 29, 2017. These data may be overstated as HS 7307.21 may contain products outside the scope of the petition.

## THE INDUSTRY IN INDIA

The Commission issued foreign producers' or exporters' questionnaires to 45 firms believed to produce and/or export stainless steel flanges from India.[4] Usable responses to the Commission's questionnaire were received from seven firms: Bebitz, Chandan Steel LTD ("Chandan Steel"), CHW Forge Pvt. Ltd. ("CHW Forge"), Echjay Forgings Pvt. Ltd. ("Echjay Forgings"), Hilton Metal Forging Limited ("Hilton Metal Forging"), Maass Flange India Private Limited ("Maass Flange India"), and Viraj.

One Indian firm reported an affiliation with a domestic producer of stainless steel flanges: ***. Four Indian firms reported affiliations with U.S. importers: ***, ***, ***, and ***.

Exports from the seven responding Indian producers and exporters to the United States accounted for essentially all U.S. imports of stainless steel flanges from India and a sizeable portion of total production in India since 2014. Table VII-7 presents information on the stainless steel flange operations of the responding producers and exporters in India.

**Table VII-7**
**Stainless steel flanges: Summary data on firms in India, 2016**

* * * * * * *

### Changes in operations

Producers were asked to report any changes in operations since January 1, 2014. Table VII-8 presents responses from producers in India. There were three reported expansions, one reported acquisition, and one revised agreement.

**Table VII-8**
**Stainless steel flanges: Reported changes in operations by producers in India, since January 1, 2014**

* * * * * * *

### Operations on stainless steel flanges

Table VII-9 presents information on the stainless steel flange operations of the responding producers and exporters in India. Not reflected in the aggregate trade data are changes in export shipments to the United States from *** and ***. *** reported exports of stainless steel flanges to the United States of *** pounds in 2015 and *** pounds in 2016, and projected exports to be *** pounds, in 2017 and 2018. *** reported exports of stainless steel flanges to the United States of *** pounds in 2015 and *** pounds in 2016, and projected exports to *** to *** in 2017 and 2018. Additionally, *** accounted for *** of internal consumption or transfer data reported by responding producers and exporters in India. In their

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

remarks at the preliminary conference, the petitioners asserted that it is "public information that Viraj is related to Bebitz...{and} Viraj may be continuing to ship {stainless steel flanges} to the United States through Bebitz."[5]

**Table VII-9**
**Stainless steel flanges: Data on industry in India, 2014-16, January to June 2016, and January to June 2017 and projection calendar years 2017 and 2018**

* * * * * * *

## Alternative products

As shown in table VII-10, responding Indian firms produced other products on the same equipment and machinery used to produce stainless steel flanges. Six Indian firms responded that they were able to switch production between covered stainless steel flanges and production of other products. However, several producers noted that product shifting limited due to existing production requirements and financial constraints.

**Table VII-10**
**Stainless steel flanges: Overall capacity and production on the same equipment as in-scope production by producers in India, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## Exports

As shown in table VII-11, during 2016, the United States was the top export market for all flanges made of stainless steel from India, accounting for 23.0 percent, followed by the Netherlands, accounting for 13.7 percent. Exports reported in table VII-6 (i.e., for HS subheading 7307.21) may include merchandise outside of the scope of the petition (i.e., stainless steel flanges less than 0.5 inches or greater than 24 inches).

[5] Conference transcript, pp. 26-27 (Pickard).

**Table VII-11**
**Stainless steel flanges: Exports from India by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Quantity (1,000 pounds) | | |
| Exports from India to the United States | 26,187 | 20,294 | 17,342 |
| Exports from India to other major destination markets.-- | | | |
| Netherlands | 8,605 | 9,308 | 10,331 |
| Germany | 6,161 | 7,094 | 7,847 |
| Belgium | 4,913 | 4,817 | 6,809 |
| Italy | 2,759 | 2,689 | 4,333 |
| United Kingdom | 3,656 | 2,987 | 3,043 |
| United Arab Emirates | 1,476 | 1,844 | 2,793 |
| Canada | 3,089 | 3,505 | 2,723 |
| Turkey | 1,256 | 1,450 | 2,280 |
| All other destination markets | 12,589 | 12,488 | 17,929 |
| Total exports from India | 70,689 | 66,474 | 75,430 |
| | Value (1,000 dollars) | | |
| Exports from India to the United States | 59,092 | 46,513 | 31,643 |
| Exports from India to other major destination markets.-- | | | |
| Netherlands | 19,859 | 19,618 | 18,569 |
| Germany | 16,209 | 16,685 | 16,359 |
| Belgium | 11,039 | 10,036 | 12,452 |
| Italy | 6,384 | 5,861 | 8,261 |
| United Kingdom | 7,811 | 6,310 | 5,234 |
| United Arab Emirates | 3,486 | 4,579 | 6,128 |
| Canada | 6,808 | 7,492 | 4,771 |
| Turkey | 2,188 | 2,807 | 3,815 |
| All other destination markets | 31,751 | 30,593 | 36,430 |
| Total exports from India | 164,629 | 150,494 | 143,662 |

Table continued.

**Table VII-11--Continued**
**Stainless steel flanges: Exports from India by destination market, 2014-16**

| Destination market | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Unit value (dollars per pound) | | |
| Exports from India to the United States | 2.26 | 2.29 | 1.82 |
| Exports from India to other major destination markets.-- | | | |
| Netherlands | 2.31 | 2.11 | 1.80 |
| Germany | 2.63 | 2.35 | 2.08 |
| Belgium | 2.25 | 2.08 | 1.83 |
| Italy | 2.31 | 2.18 | 1.91 |
| United Kingdom | 2.14 | 2.11 | 1.72 |
| United Arab Emirates | 2.36 | 2.48 | 2.19 |
| Canada | 2.20 | 2.14 | 1.75 |
| Turkey | 1.74 | 1.94 | 1.67 |
| All other destination markets | 2.52 | 2.45 | 2.03 |
| Total exports from India | 2.33 | 2.26 | 1.90 |
| | Share of quantity (percent) | | |
| Exports from India to the United States | 37.0 | 30.5 | 23.0 |
| Exports from India to other major destination markets.-- | | | |
| Netherlands | 12.2 | 14.0 | 13.7 |
| Germany | 8.7 | 10.7 | 10.4 |
| Belgium | 6.9 | 7.2 | 9.0 |
| Italy | 3.9 | 4.0 | 5.7 |
| United Kingdom | 5.2 | 4.5 | 4.0 |
| United Arab Emirates | 2.1 | 2.8 | 3.7 |
| Canada | 4.4 | 5.3 | 3.6 |
| Turkey | 1.8 | 2.2 | 3.0 |
| All other destination markets | 17.8 | 18.8 | 23.8 |
| Total exports from India | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HS subheading 7307.21, accessed July 29, 2017. These data may be overstated as HS 7307.21 may contain products outside the scope of the petition.

## THE INDUSTRIES IN SUBJECT COUNTRIES (COMBINED)

Table VII-12 presents information on the stainless steel flange operations of the responding producers and exporters in China and India combined.

**Table VII-12**
**Stainless steel flanges: Data on industry in subject sources, 2014-16, January to June 2016, January to June 2017, and 2017 and 2018 (projected)**

| Item | Actual experience | | | | | Projections | |
|---|---|---|---|---|---|---|---|
| | Calendar year | | | January to June | | Calendar year | |
| | 2014 | 2015 | 2016 | 2016 | 2017 | 2017 | 2018 |
| | Quantity (1,000 pounds) | | | | | | |
| Capacity | 109,028 | 121,614 | 147,244 | 67,493 | 84,675 | 184,394 | 184,394 |
| Production | 74,263 | 79,381 | 83,926 | 39,289 | 48,440 | 98,276 | 100,807 |
| End-of-period inventories | 1,984 | 2,547 | 2,028 | 2,343 | 3,289 | 2,404 | 2,454 |
| Shipments: | | | | | | | |
| Home market shipments: | | | | | | | |
| Internal consumption/ transfers | *** | *** | *** | *** | *** | *** | *** |
| Commercial home market shipments | *** | *** | *** | *** | *** | *** | *** |
| Total home market shipments | *** | *** | *** | *** | *** | *** | *** |
| Export shipments to: | | | | | | | |
| United States | *** | *** | *** | *** | *** | *** | *** |
| All other markets | *** | *** | *** | *** | *** | *** | *** |
| Total exports | *** | *** | *** | *** | *** | *** | *** |
| Total shipments | 75,056 | 78,819 | 84,444 | 39,494 | 47,180 | 97,900 | 100,668 |
| | Ratios and shares (percent) | | | | | | |
| Capacity utilization | 68.1 | 65.3 | 57.0 | 58.2 | 57.2 | 53.3 | 54.7 |
| Inventories/production | 2.7 | 3.2 | 2.4 | 3.0 | 3.4 | 2.4 | 2.4 |
| Inventories/total shipments | 2.6 | 3.2 | 2.4 | 3.0 | 3.5 | 2.5 | 2.4 |
| Share of shipments: | | | | | | | |
| Home market shipments: | | | | | | | |
| Internal consumption/ transfers | *** | *** | *** | *** | *** | *** | *** |
| Commercial home market shipments | *** | *** | *** | *** | *** | *** | *** |
| Total home market shipments | *** | *** | *** | *** | *** | *** | *** |
| Export shipments to: | | | | | | | |
| United States | *** | *** | *** | *** | *** | *** | *** |
| All other markets | *** | *** | *** | *** | *** | *** | *** |
| Total exports | *** | *** | *** | *** | *** | *** | *** |
| Total shipments | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table continued.

**Table VII-12--Continued**
**Stainless steel flanges: Data on industry in subject sources, 2014-16, January to June 2016, January to June 2017, and 2017 and 2018 (projected)**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Quantity (1,000 pounds)** | | | | | | |
| Resales exported to the United States | *** | *** | *** | *** | *** | *** | *** |
| Total exports to the United States | *** | *** | *** | *** | *** | *** | *** |
| | **Ratios and shares (percent)** | | | | | | |
| Share of total exports to the United States.-- Exported by producers | *** | *** | *** | *** | *** | *** | *** |
| Exported by resellers | *** | *** | *** | *** | *** | *** | *** |
| Adjusted share of total shipments exported to US | *** | *** | *** | *** | *** | *** | *** |

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

## U.S. IMPORTERS' INVENTORIES

Table VII-13 presents data on U.S. importers' reported inventories of stainless steel flanges.

**Table VII-13**
**Stainless steel flanges: U.S. importers' end-of-period inventories of imports by source, 2014-16, January to June 2016, and January to June 2017**

* * * * * * *

## U.S. IMPORTERS' CURRENT ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of stainless steel flanges from China and India between July 2017 and June 2018. Nine responding importers reported that they arranged such shipments. Table VII-14 presents data reported by U.S. importers concerning their arranged imports of stainless steel flanges.

**Table VII-14**
**Stainless steel flanges: Arranged imports, July 2017 through June 2018**

* * * * * * *

## AD/CVD ORDERS IN THIRD-COUNTRY MARKETS

There are no known trade remedy actions on stainless steel flanges in third-country markets.

## INFORMATION ON NONSUBJECT COUNTRIES

Table VII-15 presents the largest global export sources of stainless steel flanges during 2014-16.

**Table VII-15**
**Stainless steel flanges: Global exports by export source, 2014-16**

| Export source | Calendar year | | |
|---|---|---|---|
| | 2014 | 2015 | 2016 |
| | Value (1,000 dollars) | | |
| United States | 73,059 | 76,964 | 70,062 |
| China | 385,428 | 313,012 | 261,855 |
| India | 164,629 | 150,494 | 143,662 |
| All other major reporting source.--Spain | 60,593 | 98,352 | 164,514 |
| Italy | 165,645 | 109,819 | 123,131 |
| Germany | 138,530 | 102,821 | 92,039 |
| Korea | 44,972 | 41,470 | 39,979 |
| Netherlands | 56,416 | 51,774 | 33,271 |
| United Kingdom | 49,893 | 40,981 | 31,873 |
| Belgium | 29,343 | 27,147 | 25,646 |
| France | 20,833 | 13,171 | 13,430 |
| Sweden | 19,488 | 19,120 | 13,220 |
| Philippines | 20,454 | 19,697 | 13,044 |
| All other exporters | 259,083 | 215,693 | 152,830 |
| Total global exports | 1,488,366 | 1,280,515 | 1,178,557 |
| | Share of value (percent) | | |
| United States | 4.9 | 6.0 | 5.9 |
| China | 25.9 | 24.4 | 22.2 |
| India | 11.1 | 11.8 | 12.2 |
| All other major reporting source.--Spain | 4.1 | 7.7 | 14.0 |
| Italy | 11.1 | 8.6 | 10.4 |
| Germany | 9.3 | 8.0 | 7.8 |
| Korea | 3.0 | 3.2 | 3.4 |
| Netherlands | 3.8 | 4.0 | 2.8 |
| United Kingdom | 3.4 | 3.2 | 2.7 |
| Belgium | 2.0 | 2.1 | 2.2 |
| France | 1.4 | 1.0 | 1.1 |
| Sweden | 1.3 | 1.5 | 1.1 |
| Philippines | 1.4 | 1.5 | 1.1 |
| All other exporters | 17.4 | 16.8 | 13.0 |
| Total global exports | 100.0 | 100.0 | 100.0 |

Source: Official exports statistics under HS subheading 7307.21 as reported by various national statistical authorities in the IHS/GTA database, accessed July 29, 2017.

# APPENDIX A
# *FEDERAL REGISTER* NOTICES

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

| Citation | Title | Link |
|---|---|---|
| 82 FR 39914, August 22, 2017 | *Stainless Steel Flanges From China and India; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations* | https://www.gpo.gov/fdsys/pkg/FR-2017-08-22/pdf/2017-17743.pdf |
| 82 FR 42649, September 11, 2017 | *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Less-Than-Fair-Value investigations* | https://www.gpo.gov/fdsys/pkg/FR-2017-09-11/pdf/2017-19294.pdf |
| 82 FR 42654, September 11, 2017 | *Stainless Steel Flanges From India and the People's Republic of China; Initiation of Countervailing Duty Investigations* | https://www.gpo.gov/fdsys/pkg/FR-2017-09-11/pdf/2017-19293.pdf |

# APPENDIX B

# CALENDAR OF THE PUBLIC STAFF CONFERENCE

## TENTATIVE CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below are scheduled to appear as witnesses at the United States International Trade Commission's preliminary conference:

**Subject:** Stainless Steel Flanges from China and India

**Inv. Nos.:** 701-TA-585-586 and 731-TA-1383-1384 (Preliminary)

**Date and Time:** September 6, 2017 - 9:30 a.m.

Sessions will be held in connection with these preliminary phase investigations in ALJ Courtroom A (room 100), 500 E Street, S.W., Washington, DC.

| **OPENING REMARKS:** | **TIME ALLOCATION:** |
|---|---|
| Petitioner (**Daniel B. Pickard**, Wiley Rein LLP) | 5 minutes |

| **In Support to the Imposition of Antidumping and Countervailing Duty Orders:** | **TIME ALLOCATION:** |
|---|---|
| Wiley Rein LLP<br>Washington, DC<br>on behalf of | 60 minutes |

Coalition of American Flange Producers

**Alex Maass**, President, Maass Flange Corporation

**David Cook**, Vice President, Maass Flange Corporation

**Seth T. Kaplan**, Economist, International Economic Research LLC

**Daniel B. Pickard** )
) – OF COUNSEL
**Stephanie M. Bell** )

**CLOSING REMARKS:**

Petitioner (**Daniel B. Pickard**, Wiley Rein LLP) 10 minutes

**-END-**

# APPENDIX C

# SUMMARY DATA

**Table C-1**
**Stainless steel flanges: Summary data concerning the U.S. market for all producers (consolidated), forging and finishing, 2014-16, January to June 2016, and January to June 2017**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

| | Reported data | | | | | Period changes | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Calendar year | | | January to June | | Calendar year | | | Jan-Jun |
| | 2014 | 2015 | 2016 | 2016 | 2017 | 2014-16 | 2014-15 | 2015-16 | 2016-17 |
| U.S. consumption quantity: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. consumption value: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. imports from: | | | | | | | | | |
| China: | | | | | | | | | |
| Quantity | 7,928 | 7,186 | 5,409 | 2,646 | 2,855 | (31.8) | (9.4) | (24.7) | 7.9 |
| Value | 27,477 | 22,869 | 18,066 | 9,007 | 9,520 | (34.3) | (16.8) | (21.0) | 5.7 |
| Unit value | $3.47 | $3.18 | $3.34 | $3.40 | $3.33 | (3.6) | (8.2) | 5.0 | (2.0) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | | | | | | | | | |
| Quantity | 26,114 | 23,333 | 17,705 | 9,484 | 10,444 | (32.2) | (10.6) | (24.1) | 10.1 |
| Value | 66,842 | 57,066 | 33,431 | 18,920 | 20,078 | (50.0) | (14.6) | (41.4) | 6.1 |
| Unit value | $2.56 | $2.45 | $1.89 | $1.99 | $1.92 | (26.2) | (4.4) | (22.8) | (3.6) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources: | | | | | | | | | |
| Quantity | 34,042 | 30,519 | 23,114 | 12,130 | 13,299 | (32.1) | (10.3) | (24.3) | 9.6 |
| Value | 94,320 | 79,936 | 51,497 | 27,928 | 29,599 | (45.4) | (15.3) | (35.6) | 6.0 |
| Unit value | $2.77 | $2.62 | $2.23 | $2.30 | $2.23 | (19.6) | (5.5) | (14.9) | (3.3) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources: | | | | | | | | | |
| Quantity | 15,511 | 14,349 | 16,109 | 8,107 | 7,527 | 3.9 | (7.5) | 12.3 | (7.2) |
| Value | 70,968 | 64,068 | 58,776 | 29,809 | 30,363 | (17.2) | (9.7) | (8.3) | 1.9 |
| Unit value | $4.58 | $4.46 | $3.65 | $3.68 | $4.03 | (20.3) | (2.4) | (18.3) | 9.7 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources: | | | | | | | | | |
| Quantity | 49,553 | 44,868 | 39,223 | 20,237 | 20,826 | (20.8) | (9.5) | (12.6) | 2.9 |
| Value | 165,288 | 144,004 | 110,274 | 57,737 | 59,962 | (33.3) | (12.9) | (23.4) | 3.9 |
| Unit value | $3.34 | $3.21 | $2.81 | $2.85 | $2.88 | (15.7) | (3.8) | (12.4) | 0.9 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Integrated U.S. producers': | | | | | | | | | |
| Average capacity quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capacity utilization (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Non-integrated finishers': | | | | | | | | | |
| Average capacity quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capacity utilization (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. shipments: | | | | | | | | | |
| Quantity (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Export shipments: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Inventories/total shipments (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production workers | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hours worked (1,000s) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Wages paid ($1,000) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hourly wages (dollars) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net sales: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Cost of goods sold (COGS) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Gross profit or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capital expenditures | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit COGS | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| COGS/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |

Notes:

Note.-- U.S. producers' U.S. shipment quantities including flanges finished from unfinished imports were: *** million pounds in 2014; *** million pounds in 2015; *** million pounds in 2016; *** million pounds in January-June 2016; and *** million pounds in January-June 2017.
fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined.
fn3.--Includes value added by finisher only U.S. producers added to integrated U.S. producers' U.S. shipments of unfinished SS flanges.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000 , accessed August 29, 2017.

**Table C-2**
**Stainless steel flanges: Summary data concerning the U.S. market for Maass forging and finishing, 2014-16, January to June 2016, and January to June 2017**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

| | Reported data | | | | | Period changes | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Calendar year | | | January to June | | Calendar year | | | Jan-Jun |
| | 2014 | 2015 | 2016 | 2016 | 2017 | 2014-16 | 2014-15 | 2015-16 | 2016-17 |
| U.S. consumption quantity: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1): | | | | | | | | | |
| Included firms | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Excluded firms | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All U.S. producers | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. consumption value: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1): | | | | | | | | | |
| Included firms | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Excluded firms | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All U.S. producers | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. imports from: | | | | | | | | | |
| China: | | | | | | | | | |
| Quantity | 7,928 | 7,186 | 5,409 | 2,646 | 2,855 | (31.8) | (9.4) | (24.7) | 7.9 |
| Value | 27,477 | 22,869 | 18,066 | 9,007 | 9,520 | (34.3) | (16.8) | (21.0) | 5.7 |
| Unit value | $3.47 | $3.18 | $3.34 | $3.40 | $3.33 | (3.6) | (8.2) | 5.0 | (2.0) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | | | | | | | | | |
| Quantity | 26,114 | 23,333 | 17,705 | 9,484 | 10,444 | (32.2) | (10.6) | (24.1) | 10.1 |
| Value | 66,842 | 57,066 | 33,431 | 18,920 | 20,078 | (50.0) | (14.6) | (41.4) | 6.1 |
| Unit value | $2.56 | $2.45 | $1.89 | $1.99 | $1.92 | (26.2) | (4.4) | (22.8) | (3.6) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources: | | | | | | | | | |
| Quantity | 34,042 | 30,519 | 23,114 | 12,130 | 13,299 | (32.1) | (10.3) | (24.3) | 9.6 |
| Value | 94,320 | 79,936 | 51,497 | 27,928 | 29,599 | (45.4) | (15.3) | (35.6) | 6.0 |
| Unit value | $2.77 | $2.62 | $2.23 | $2.30 | $2.23 | (19.6) | (5.5) | (14.9) | (3.3) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources: | | | | | | | | | |
| Quantity | 15,511 | 14,349 | 16,109 | 8,107 | 7,527 | 3.9 | (7.5) | 12.3 | (7.2) |
| Value | 70,968 | 64,068 | 58,776 | 29,809 | 30,363 | (17.2) | (9.7) | (8.3) | 1.9 |
| Unit value | $4.58 | $4.46 | $3.65 | $3.68 | $4.03 | (20.3) | (2.4) | (18.3) | 9.7 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources: | | | | | | | | | |
| Quantity | 49,553 | 44,868 | 39,223 | 20,237 | 20,826 | (20.8) | (9.5) | (12.6) | 2.9 |
| Value | 165,288 | 144,004 | 110,274 | 57,737 | 59,962 | (33.3) | (12.9) | (23.4) | 3.9 |
| Unit value | $3.34 | $3.21 | $2.81 | $2.85 | $2.88 | (15.7) | (3.8) | (12.4) | 0.9 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Included U.S. producers': | | | | | | | | | |
| Average capacity quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capacity utilization (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. shipments: | | | | | | | | | |
| Quantity (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value (fn3) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Export shipments: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Inventories/total shipments (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production workers | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hours worked (1,000s) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Wages paid ($1,000) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hourly wages (dollars) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Productivity (pounds per hour) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit labor costs | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net sales: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Cost of goods sold (COGS) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Gross profit or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capital expenditures | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit COGS | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| COGS/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined.
fn3.--Includes value added by Maass' finishing operations to purchased unfinished stainless steel flanges.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000 , accessed August 29, 2017.

**Table C-3**
**Stainless steel flanges: Summary data concerning the U.S. market excluding U.S. finisher only firms, 2014-16, January to June 2016, and January to June 2017**
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

| | Reported data | | | | | Period changes | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Calendar year | | | January to June | | Calendar year | | | Jan-Jun |
| | 2014 | 2015 | 2016 | 2016 | 2017 | 2014-16 | 2014-15 | 2015-16 | 2016-17 |
| U.S. consumption quantity: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. consumption value: | | | | | | | | | |
| Amount | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Producers' share (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Importers' share (fn1): | | | | | | | | | |
| China | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. imports from: | | | | | | | | | |
| China: | | | | | | | | | |
| Quantity | 7,928 | 7,186 | 5,409 | 2,646 | 2,855 | (31.8) | (9.4) | (24.7) | 7.9 |
| Value | 27,477 | 22,869 | 18,066 | 9,007 | 9,520 | (34.3) | (16.8) | (21.0) | 5.7 |
| Unit value | $3.47 | $3.18 | $3.34 | $3.40 | $3.33 | (3.6) | (8.2) | 5.0 | (2.0) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| India | | | | | | | | | |
| Quantity | 26,114 | 23,333 | 17,705 | 9,484 | 10,444 | (32.2) | (10.6) | (24.1) | 10.1 |
| Value | 66,842 | 57,066 | 33,431 | 18,920 | 20,078 | (50.0) | (14.6) | (41.4) | 6.1 |
| Unit value | $2.56 | $2.45 | $1.89 | $1.99 | $1.92 | (26.2) | (4.4) | (22.8) | (3.6) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Subject sources: | | | | | | | | | |
| Quantity | 34,042 | 30,519 | 23,114 | 12,130 | 13,299 | (32.1) | (10.3) | (24.3) | 9.6 |
| Value | 94,320 | 79,936 | 51,497 | 27,928 | 29,599 | (45.4) | (15.3) | (35.6) | 6.0 |
| Unit value | $2.77 | $2.62 | $2.23 | $2.30 | $2.23 | (19.6) | (5.5) | (14.9) | (3.3) |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Nonsubject sources: | | | | | | | | | |
| Quantity | 15,511 | 14,349 | 16,109 | 8,107 | 7,527 | 3.9 | (7.5) | 12.3 | (7.2) |
| Value | 70,968 | 64,068 | 58,776 | 29,809 | 30,363 | (17.2) | (9.7) | (8.3) | 1.9 |
| Unit value | $4.58 | $4.46 | $3.65 | $3.68 | $4.03 | (20.3) | (2.4) | (18.3) | 9.7 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| All import sources: | | | | | | | | | |
| Quantity | 49,553 | 44,868 | 39,223 | 20,237 | 20,826 | (20.8) | (9.5) | (12.6) | 2.9 |
| Value | 165,288 | 144,004 | 110,274 | 57,737 | 59,962 | (33.3) | (12.9) | (23.4) | 3.9 |
| Unit value | $3.34 | $3.21 | $2.81 | $2.85 | $2.88 | (15.7) | (3.8) | (12.4) | 0.9 |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. producers': (fn3) | | | | | | | | | |
| Average capacity quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capacity utilization (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| U.S. shipments: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Export shipments: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Ending inventory quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Inventories/total shipments (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Production workers | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hours worked (1,000s) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Wages paid ($1,000) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Hourly wages (dollars) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Productivity (pounds per hour) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit labor costs | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net sales: | | | | | | | | | |
| Quantity | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit value | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Cost of goods sold (COGS) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Gross profit or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Capital expenditures | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit COGS | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit SG&A expenses | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit operating income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Unit net income or (loss) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| COGS/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Operating income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |
| Net income or (loss)/sales (fn1) | *** | *** | *** | *** | *** | *** | *** | *** | *** |

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined.
fn3.--U.S. producers' data represents Maass integrated data all finishing operations excluded even those of Maass.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. imports statistics using HTS statistical reporting numbers 7307.21.1000 and 7307.21.5000 , accessed August 29, 2017.