Common Alloy Aluminum Sheet from China

Investigation Nos. 701-TA-591 and 731-TA-1399 (Final)

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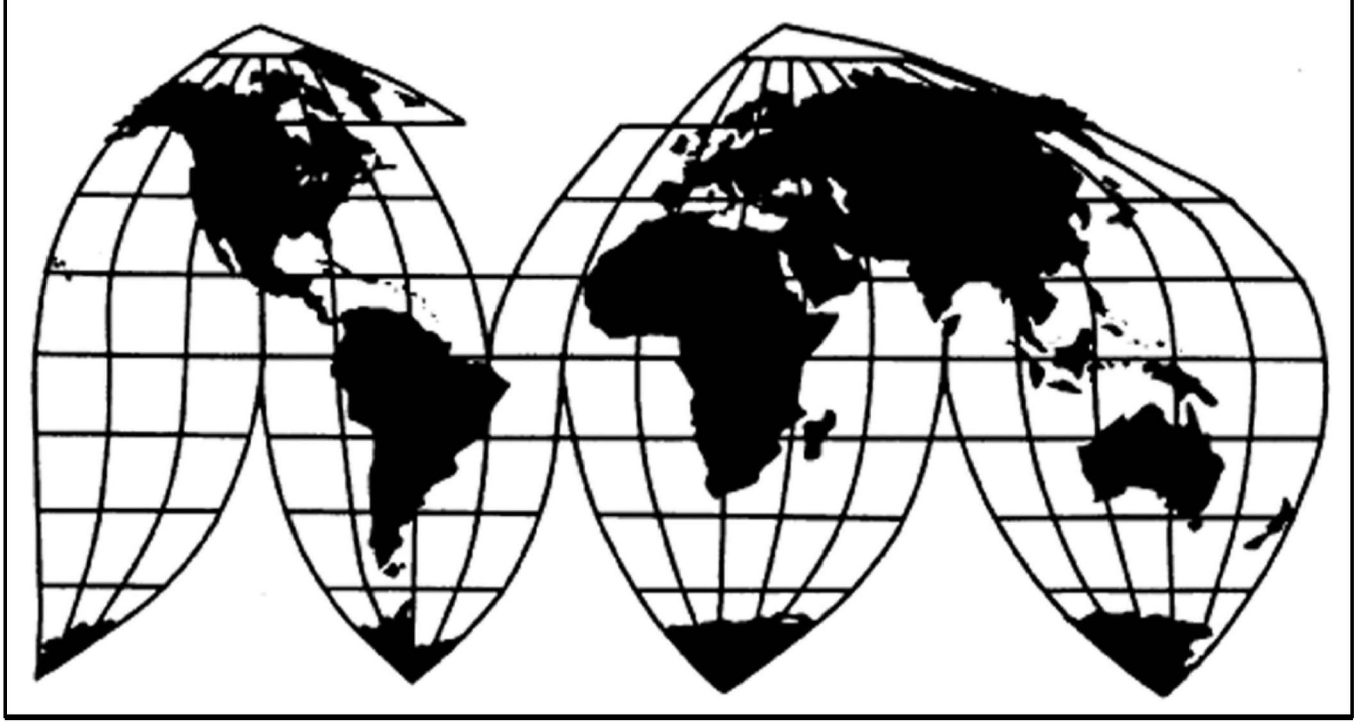
U.S. International Trade Commission



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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-591 and 731-TA-1399 (Final)

Common Alloy Aluminum Sheet from China

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 an industry in the United States is materially injured by reason of imports of common alloy aluminum sheet from China, provided for in subheadings 7606.11.30, 7606.11.60, 7606.12.30, 7606.12.60, 7606.91.30, 7606.91.60, 7606.92.30, and 7606.92.60 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV"), and to be subsidized by the government of China.[2]

BACKGROUND

The Commission, pursuant to sections 705(b) and 735(b) of the Act (19 U.S.C. 1671d(b) and 19 U.S.C. 1673d(b)), instituted these investigations in response to a notification of investigations self-initiated by the U.S. Department of Commerce deemed by the Commission as having been filed on December 1, 2017. The final phase of the investigations was scheduled by the Commission following notification of preliminary determinations by Commerce that imports of common alloy aluminum sheet from China were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)) and sold at LTFV within the meaning of 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* on July 18, 2018 (83 FR 33946).[3] The hearing was held in Washington, DC, on October 30, 2018, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

[2] The Commission also finds that imports subject to Commerce's affirmative critical circumstances determinations are not likely to undermine seriously the remedial effect of the countervailing and antidumping duty orders on common alloy aluminum sheet from China.

[3] Due to the lapse in appropriations and ensuing cessation of Commission operations, all import injury investigations conducted under authority of Title VII of the Tariff Act of 1930 accordingly have been tolled pursuant to 19 U.S.C. §§ 1671d(b)(2), 1673d(b)(2).

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of common alloy aluminum sheet ("CAAS") from China found by the U.S. Department of Commerce to be sold in the United States at less than fair value and to be subsidized by the government of China.[1]

I. Background

These investigations were self-initiated by the U.S. Department of Commerce ("Commerce"). The Commission deemed them to have been filed on December 1, 2017. The Aluminum Association Common Alloy Sheet Trade Enforcement Working Group ("the CAAS Working Group") and its member firms,[2] which are domestic producers of CAAS, appeared at the hearing and submitted prehearing and posthearing briefs in support of imposition of duties. This opinion refers collectively to the CAAS Working Group and its members as the "Domestic Interested Parties" or the "Domestic Industry."

Three sets of respondents appeared at the hearing and submitted prehearing and posthearing briefs:

- China Nonferrous Metals Industry Association ("CNIA"), and certain of its member companies,[3] which are Chinese producers and/or exporters of subject merchandise (collectively, "the Chinese Respondents").

[1] Due to the lapse in appropriations and ensuing cessation of Commission operations, all import injury investigations conducted under authority of Title VII of the Tariff Act of 1930 accordingly have been tolled pursuant to 19 U.S.C. §§ 1671d(b)(2), 1673d(b)(2).

[2] The CAAS Working Group consists of the following six member firms: Aleris Rolled Products, Inc.; Arconic, Inc.; Constellium Rolled Products Ravenswood LLC; Jupiter Aluminum Corporation; JW Aluminum Company; and Novelis Corporation.

[3] These member companies are Yongjie New Materials Co., Ltd., Southwest Aluminum (Group) Co., Ltd., Jiangsu Alcha Aluminum Co., Ltd., Dalian Huicheng Aluminum Industry Co., Ltd., Wuxi Yinbang Aluminum Industry Co., Ltd., Qinghai Ping An High Precision Aluminum Industry Co., Ltd., Luoyang Wanji Aluminum Processing Co., Ltd., Shanghai Anometal Aluminum Co., Ltd., Changzhou Shuang'ou Panel Industry Limited Company, Tianjin Zhongwang Aluminum Industry Co., Ltd., Ruyuan East Sunshine Fine Foil Co., Ltd., Xiamen Xiangyu Taiping Integrated Logistics Co., Ltd., Aluminum Corporation of China Limited, Northeast Light Alloy Co., Ltd., Shanghai Huayuan New Composite Materials Co., Ltd., Jiangsu Daya Aluminum Co., Ltd., Jiangyin BondTape Technology Corporation, Alumax Composite Materials (Jiangyin) Co., Ltd., Yinbang Clad Material Co., Ltd., Fujian Nanping Aluminum Co., Ltd,. Xiamen Xiashun Aluminium Foil Co., Ltd., Shandong Nanshan Aluminium Co., Ltd., Shandong Weiqiao Pioneering Group Company Limited, Shandong Yu Hang Special Alloy Co., Ltd., Henan Yulian Energy Group Co., Ltd., China Yidian Holding Group Co., Ltd., Henan Shenhuo Group Co., Ltd., Henan Wanji Holdings Group Co., Ltd., Luoyang Longding Aluminum Industries Co., Ltd., Hunan Suntown Technology Group Corporation Limited (SNTO), and Northwest Aluminum Corporation Limited. Chinese Respondents Prehearing Br. at 1 n.1.

- C.E. Smith Company, AA Metals, Inc., and Manakin Industries, LLC, importers of subject merchandise; the National Marine Manufacturers Association, the National Association of Trailer Manufacturers, and the Recreational Vehicle Industry Association, organizations representing industrial users and consumers of CAAS (collectively, "NMMA").
- Metal Exchange Corporation ("MEC"), an importer of subject merchandise.[4]

U.S. industry data are based on the questionnaire responses of ten producers, accounting for the vast majority of U.S. production of CAAS in 2017.[5] U.S. import data are based on official Commerce import statistics and questionnaire responses from 49 U.S. importers, accounting for approximately 90 percent of total subject imports in 2017.[6] The Commission received responses to its questionnaires from 12 Chinese producers that accounted for approximately 23.7 percent of Chinese production of subject merchandise in 2017.[7]

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[8] 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."[9] 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."[10]

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[4] Additional firms filed briefs but did not appear at the hearing. Ta Chen International, Inc. ("Ta Chen"), an importer of subject merchandise, filed prehearing and posthearing briefs. Ball Metal Beverage Container Corporation and its parent company Ball Corporation (collectively, "Ball"), which are U.S. producers of beverage cans, filed a posthearing brief arguing that the Commission should not include can stock in the domestic like product. Ball did not file a prehearing brief.

[5] Confidential Report (CR) at I-5, III-1; Public Report (PR) at I-4, III-1.

[6] CR/PR at IV-1; CR at I-5, PR at I-4. Official import statistics include U.S. import data under the following eight HTS statistical reporting numbers: 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080. CR at I-5, PR at I-4. These do not include aluminum can stock which is currently imported under HTS statistical reporting numbers 7606.12.3045 and 7606.12.3055. CR at I-14 n.29, PR at I-11 n.29.

[7] CR at I-6, VII-3, PR at I-4, VII-3.

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(4)(A).

[10] 19 U.S.C. § 1677(10).

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[11] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[12] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[13] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,[14] the Commission determines what domestic product is like the imported articles Commerce has identified.[15]

B. Scope Definition

In its final determinations, Commerce defined the imported merchandise within the scope of these investigations as:

> . . . aluminum common alloy sheet (common alloy sheet), which is a flat-rolled aluminum product having a thickness of 6.3 mm or less, but greater than 0.2 mm, in coils or cut-to-length, regardless of width.

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

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

[13] *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.").

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

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

> Common alloy sheet within the scope of this investigation includes both not clad aluminum sheet, as well as multi-alloy, clad aluminum sheet. With respect to not clad aluminum sheet, common alloy sheet is manufactured from a 1XXX-, 3XXX-, or 5XXX-series alloy as designated by the Aluminum Association. With respect to multi-alloy, clad aluminum sheet, common alloy sheet is produced from a 3XXX-series core, to which cladding layers are applied to either one or both sides of the core.
>
> Common alloy sheet may be made to ASTM specification B209-14, but can also be made to other specifications. Regardless of specification, however, all common alloy sheet meeting the scope description is included in the scope. Subject merchandise includes common alloy sheet that has been further processed in a third country, including but not limited to annealing, tempering, painting, varnishing, trimming, cutting, punching, and/or slitting, or any other processing that would not otherwise remove the merchandise from the scope of the investigation if performed in the country of manufacture of the common alloy sheet.
>
> Excluded from the scope of this investigation is aluminum can stock, which is suitable for use in the manufacture of aluminum beverage cans, lids of such cans, or tabs used to open such cans. Aluminum can stock is produced to gauges that range from 0.200 mm to 0.292 mm, and has an H-19, H-41, H-48, or H-391 temper. In addition, aluminum can stock has a lubricant applied to the flat surfaces of the can stock to facilitate its movement through machines used in the manufacture of beverage cans. Aluminum can stock is properly classified under Harmonized Tariff Schedule of the United States (HTSUS) subheadings 7606.12.3045 and 7606.12.3055.
>
> Where the nominal and actual measurements vary, a product is within the scope if application of either the nominal or actual measurement would place it within the scope based on the definitions set for the above.[16]

CAAS is a thin wrought aluminum product that is produced via a rolling process.[17] It is produced in a variety of gauges or levels of thickness.[18] CAAS is used in a wide variety of applications, including building and construction, electrical, infrastructure, marine, and

[16] *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value*, 83 Fed. Reg. 57421, 57424 (Nov. 15, 2018); *Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*, 83 Fed. Reg. 57427, 57429 (Nov. 15, 2018).

[17] CR at I-15, PR at I-12.

[18] CR at I-15-16, PR at I-12.

transportation, where properties such as strength, light weight, formability, and corrosion resistance are desired.[19]

C. Arguments of the Parties

The Domestic Interested Parties argue that the Commission should define a single domestic like product that is coextensive with the scope.[20] Chinese Respondents and NMMA Respondents argue the Commission should include aluminum can stock ("can stock"), which is expressly excluded from the scope, in the domestic like product.[21]

D. Analysis[22]

In the preliminary determinations, the Commission found that the record on out-of-scope can stock was limited and mixed. It concluded that out-of-scope can stock and in-scope

[19] CR at I-3-4, PR at I-3.

[20] Domestic Interested Parties' Posthearing Br., Exh. 1 at 6-12.

[21] Chinese Respondents' Prehearing Br. at 10-21; Chinese Respondents' Posthearing, Exh. 1 at 1-5; NMMA Prehearing Br. at 2-12; NMMA Posthearing Br., Attachment A at 7-9.

[22] In the preliminary determinations, the Commission addressed arguments that brazing stock should be defined as a separate domestic like product. While acknowledging the record contained limited information with respect to brazing stock, the Commission found that brazing stock and other types of CAAS within the scope had different uses, were not interchangeable, and were priced differently (based upon average unit value ("AUV") data). The Commission also stated that it was less clear whether these distinctions reflected possible physical differences in the alloys used for brazing stock and other types of CAAS within the scope, and whether there were similar differences among other CAAS products within the scope. It noted that the evidence suggested some degree of overlap in the manufacturing facilities and production processes and in channels of distribution, and that the evidence regarding producer and customer perceptions appeared to be mixed. Given these considerations, it concluded that there was not a clear dividing line separating brazing stock from other CAAS within the scope. Accordingly, it did not define brazing stock to be a separate like product. *See Common Alloy Aluminum Sheet from China,* Inv. Nos. 701-TA-591 and 731-TA-1399 (Preliminary), USITC Pub. 4757 at 7-9 (January 2018) ("*Preliminary Determinations*").

The record in the final phase of these investigations contains limited additional information concerning the domestic like product factors for brazing stock. *See generally* CR at I-28-33, PR at I-21-24; CR/PR at Tables I-4-7. There is no new information concerning the products' physical characteristics and end uses, manufacturing facilities and production processes, interchangeability, and price that would lead us to revisit our findings from the preliminary phase for each of these factors. Additional information regarding channels of distribution indicates that there is overlap between brazing stock and all other CAAS in the channels for end users and converters. CR/PR at Tables I-4, I-6. There is also additional information in the record concerning customer and producer perceptions; while perceptions are not uniform, they generally indicate some degree of comparability between brazing stock and other in-scope CAAS. CR/PR at Table I-4; CR at I-32-33, PR at I-24. Moreover, no party in the final phase of these investigations argues that the Commission should define brazing stock as a separate domestic like product. Based on the foregoing, and the Commission's analysis from its preliminary determination, we again find that brazing stock is not a separate domestic like product from other CAAS.

CAAS appeared to have different uses and generally were not interchangeable. The Commission also found, however, that there appeared to be at least some degree of overlap in terms of their physical characteristics; manufacturing facilities, processes, and employees; channels of distribution; and price (based on AUV data). It found that the limited record on producer and customer perceptions was mixed and inconclusive. For the above reasons, the Commission declined to define the domestic like product more broadly than the scope to include can stock.[23] Based on the information in the record collected during the final phase of these investigations, as described below, we again decline to define the domestic like product more broadly than the scope.

Physical Characteristics and Uses. Out-of-scope can stock and in-scope CAAS have different uses. Can stock is used only in the manufacture of aluminum beverage cans, whereas CAAS within the scope has a wide range of industrial applications, including electrical, construction, transportation, and marine applications, but is not used for manufacturing beverage cans.[24] Moreover, can stock is not a niche product, but constitutes a substantial end use: the volume of domestic production of out-of-scope can stock was similar to domestic production of all in-scope CAAS products during the January 2015-June 2018 period of investigation ("POI").[25]

Depending on the intended end use of a final product, aluminum is alloyed with different metals (manganese in 3XXX series alloys and magnesium in 5XXX series alloys) in order to enhance certain physical characteristics.[26] Alloys within the same series share the same major alloying metal, but may have different chemical compositions.[27] Out-of-scope can stock and in-scope CAAS include common series of aluminum alloys. Can stock uses a 3XXX series aluminum alloy for manufacturing the body of the beverage can and a 5XXX series aluminum alloy for manufacturing the lid of the beverage can.[28] CAAS within the scope consists of 1XXX, 3XXX, and 5XXX series aluminum alloys.[29]

While the Domestic Interested Parties contend that can stock is a generally thinner gauge product relative to CAAS,[30] the gauge for the out-of-scope can stock is within the scope range for CAAS thickness in these investigations, albeit on the lower end of the range.[31] U.S. production of aluminum can stock during the POI was in gauges of 0.200 mm to 0.292 mm.[32]

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[23] *See Preliminary Determinations,* USITC Pub. 4757 at 9-11.

[24] Domestic Interested Parties' Posthearing Br., Exh. 1 at 8-10.

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

[26] CR/PR at Table I-3.

[27] CR/PR at Tables I-3, II-8.

[28] CR at I-35, PR at I-25.

[29] CR at I-13-15, PR at I-10-11.

[30] Domestic Interested Parties' Posthearing Br., Exh. 1 at 7-8; Hearing Tr. at 30-31 (Stemple).

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

[32] CR/PR at Table III-10. Six of ten U.S. producers reported producing and selling CAAS with gauges between 0.200 mm and 0.292 mm, the same range of gauges as can stock. CR/PR at Table I-9. There is information in the record indicating that there are similarities and differences in the temper and surface lubricants of out-of-scope can stock and in-scope CAAS. Five U.S. producers reported that CAAS was produced with H-19 temper, while four producers reported that can stock was produced with H-19

The vast majority (approximately 98 percent) of U.S. production of in-scope CAAS was in gauges of greater than 0.292 mm to 6.3 mm, with only approximately 2.0 percent in coils of 0.200 mm to 0.292 mm.[33]

When rating the comparability of out-of-scope can stock and all CAAS within the scope on the basis of characteristics and uses, all six responding U.S. producers and a majority of responding U.S. purchasers (three of four) indicated that they were never comparable with respect to characteristics and uses.[34]

Manufacturing Facilities, Production Processes, and Employees. The record is mixed as to whether can stock is produced on the same equipment, using the same production processes and the same employees, as CAAS within the scope. The processes for manufacturing all CAAS within the scope and out-of-scope can stock consists generally of three distinct stages: (1) smelting and refining aluminum, (2) casting aluminum into semi-finished forms, and (3) rolling semifinished forms into aluminum sheet.[35] According to the Domestic Interested Parties, can stock has a distinctive cold-rolling process due to the very precise surface requirements needed to meet customer demands, suggesting that the rolling processes for making can stock may be somewhat different than those used to make CAAS.[36] Additionally, out-of-scope can stock is typically not annealed, while in-scope CAAS generally is annealed.[37]

Three of ten U.S. producers of CAAS (***) reported that they produce out-of-scope can stock on the same equipment and machinery used to produce CAAS, while one producer (***) reported that it produces can stock and CAAS using different equipment and machinery.[38] Further, there is information in the record indicating that it is possible to produce CAAS on a mill that is configured for can stock, but not the other way around.[39] When asked to rate the comparability of out-of-scope can stock and all CAAS within the scope on the basis of manufacturing facilities and employees, a majority of responding domestic producers (four of six) indicated that they were never comparable and two producers reported that they were somewhat comparable; U.S. purchasers' responses were mixed, as one purchaser reported that

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temper. CR/PR at Table I-9. Only *** reported producing both CAAS and can stock with H-19 temper. *Id*. No U.S. producer reported producing CAAS with H-41 temper, H-48 temper, or H-391 temper, while two producers reported producing can stock with H-48 temper and one firm reported producing can stock with H-391 temper. *Id*. Two U.S. producers reported that in-scope CAAS was produced with surface lubricant applied while three producers reported that out-of-scope can stock was produced using surface lubricant. *Id*.

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

[34] CR/PR at Table I-8. One purchaser reported that out-of-scope can stock and in-scope CAAS were fully comparable in terms of physical characteristics and uses. *Id*.

[35] CR at I-18-25, PR at I-14-18.

[36] Domestic Interested Parties' Posthearing Br., Exh. 1 at 9. As discussed above, two U.S. producers reported that in-scope CAAS was produced with surface lubricant being applied while three producers reported that out-of-scope can stock was produced using surface lubricant. CR/PR at Table I-8.

[37] Domestic Interested Parties' Posthearing Br., Exh. 1 at 9.

[38] CR/PR at Table I-10; CR at I-39, PR at I-27.

[39] *See, e.g.*, Domestic Interested Parties' Posthearing Br., Exh. 1 at 10, Exh. 4, para. 3.

they were mostly comparable, one purchaser reported that they were somewhat comparable, and one purchaser reported that they were never comparable.[40]

Channels of Distribution. While the general channels of distribution for both groups of products are similar on their face,[41] out-of-scope can stock and all CAAS within the scope are sold to different types of customers. Can stock is sold to converters and end users to be used solely in aluminum can production, while in-scope CAAS is sold to a number of different entities that further process the product into articles such as boats, recreational vehicles, thermal insulation, wire roof coil, common alloy coil, auto heat shields, commercial transportation products, residential siding, gutters and downspouts, and HVAC equipment.[42] When asked to rate the comparability of out-of-scope can stock to all CAAS within the scope on the basis of channels of distribution, all six responding domestic producers and both responding U.S. purchasers indicated that they were never comparable.[43]

Interchangeability. The record indicates that out-of-scope can stock and in-scope CAAS are generally not interchangeable. As explained above, can stock and CAAS are used for entirely different end uses. When asked to rate the comparability of out-of-scope can stock to all CAAS within the scope on the basis of interchangeability, all six responding domestic producers and four of five responding U.S. purchasers indicated that can stock was never comparable with in-scope CAAS.[44]

Producer and Customer Perceptions. The record indicates that market participants generally perceive can stock and all other CAAS within the scope as distinct products. For example, the record indicates that the Aluminum Association reports U.S. producers' U.S. shipments of can stock separately from other aluminum sheet and plate products.[45] When asked to rate the comparability of out-of-scope can stock to all CAAS within the scope on the basis of market perceptions, all six responding domestic producers indicated that they were never comparable,[46] and the two responding purchasers reported that they are somewhat or never comparable.[47]

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[40] CR/PR at Table I-8.

[41] During the POI, U.S. producers' shipments of can stock were sold mainly to end users, with the remainder to converters, while U.S. producers' shipments of CAAS within the scope were fairly evenly divided among distributors, converters, and end users. CR at I-41, PR at I-28; CR/PR at Table I-12. As a share of total U.S. shipments, U.S. producers' shipments of can stock ranged from *** percent to *** percent for end users and ranged from *** percent to *** percent for converters. CR/PR at Table I-12. As a share of total shipments, U.S. producers' shipments of all CAAS within the scope ranged from *** percent to *** percent for distributors; from *** percent to *** percent for converters, and from *** percent to *** percent for end users. *Id*.

[42] CR at II-8, PR at II-5-6; Domestic Interested Parties' Posthearing Br., Exh. 1 at 10-11; Hearing Tr. at 30 (Stemple).

[43] CR/PR at Table I-8.

[44] CR/PR at Table I-8. One purchaser reported that can stock and CAAS were fully comparable in terms of interchangeability. *Id*.

[45] Hearing Tr. at 21 (Brock); EDIS Doc. 662375.

[46] CR/PR at Table I-8.

[47] CR/PR at Table I-8.

Price. There are no specific price data for can stock in the record. During the period of investigation, the AUV of U.S. producers' U.S. commercial shipments of can stock ranged from $*** per short ton to $*** per short ton, while the AUV for all domestically produced CAAS within the scope ranged from $*** per short ton to $*** per short ton.[48] When asked to rate the comparability of out-of-scope can stock to all in-scope CAAS on the basis of price, all five responding U.S. producers and two of three responding U.S. purchasers indicated that they were never comparable.[49]

Conclusion. Based on the current record, there are clear distinctions between can stock and in-scope CAAS with respect to end use, interchangeability, producer perceptions, and pricing (as reflected by AUV data). While there is some overlap between can stock and in-scope CAAS in terms of physical characteristics, channels of distribution, and production facilities, several of these overlaps are limited in nature: only a minimal percentage of domestically produced CAAS is of the same thickness as can stock, and while most can stock and an appreciable percentage of CAAS is sold to end users, different types of end users purchase can stock. Taking all of these considerations into account, we find that the distinctions between can stock and CAAS outweigh the similarities. We consequently do not include can stock in the domestic like product.

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

III. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[50] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

These final phase investigations raise the issue of 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

[48] CR/PR at Table I-13.

[49] CR/PR at Table I-8. One purchaser reported that out-of-scope can stock and in-scope CAAS were somewhat comparable with respect to price. *Id*.

[50] 19 U.S.C. § 1677(4)(A).

subject merchandise or which are themselves importers.[51] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[52]

In the final phase of these investigations, we first analyze whether any domestic producers are subject to potential exclusion from the domestic industry pursuant to the related parties provision.[53] Two domestic producers – *** – meet the statutory definition of a related party. *** is a related party because it is related to ***, an exporter of the subject merchandise, through common ownership.[54] *** is a related party because it imported subject merchandise from China during the POI.[55] We discuss below whether appropriate circumstances exist to exclude either of the related party producers from the domestic industry.[56]

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[51] *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).

[52] 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.

[53] In its preliminary determinations, the Commission examined whether appropriate circumstances existed to exclude domestic producers *** pursuant to the related parties provision. Confidential Preliminary Determinations, EDIS Doc. 634843 at 17-20. While it found that both firms met the definition of a related party, it did not find that appropriate circumstances existed to exclude either producer from the domestic industry. It therefore defined the domestic industry to include all domestic producers of CAAS. *Preliminary Determinations*, USITC Pub. 4757 at 13.

The Domestic Interested Parties argue that the Commission's findings concerning related parties in the preliminary determinations continue to be supported by the record in the final phase of these investigations. Accordingly, they argue that appropriate circumstances again do not exist to exclude any firms from the domestic industry pursuant to the related parties provision and that the domestic industry should be defined as all domestic producers of CAAS. *See* Domestic Interested Parties' Prehearing Br. at 9-10. Respondents did not address the related party issue.

[54] ***. CR/PR at Table III-2; CR at III-3-4, n.2, PR at III-2-3 n.2. *** is consequently a related party pursuant to 19 U.S.C. § 1677(4)(B)(ii)(III). ***, an importer of subject merchandise. CR/PR at Table III-2. The record is unclear whether there is a control relationship between *** and ***.

[55] CR/PR at Table III-12.

[56] Domestic producer Arconic is related by common ownership to *** and ***, two producers of the subject merchandise in China. CR/PR at Table III-2. However, according to *** during the POI. CR at

****.* *** was the *** largest domestic producer in 2017, accounting for *** percent of domestic production.[57] Exports of subject merchandise from *** were *** short tons in 2015 (the equivalent of *** percent of *** domestic production), *** short tons in 2016 (the equivalent of *** percent of *** domestic production), *** short tons in 2017 (the equivalent of *** percent of *** domestic production), *** short tons in January-June (interim) 2017 (the equivalent of *** percent of *** domestic production), and *** short tons in January-June (interim) 2018 (the equivalent of *** percent of *** domestic production).[58] *** concerning the imposition of antidumping duties.[59]

We find that appropriate circumstances do not exist to exclude *** from the domestic industry. *** U.S. production is *** than the U.S. imports of its related exporter, underscoring that *** principal interest is in domestic production.[60] Moreover, no party has argued for the exclusion of *** as a related party.

****.* *** was the *** largest domestic producer in 2017, accounting for *** percent of domestic production.[61] *** imported *** short tons of CAAS from China in 2015 (the equivalent of *** percent of its domestic production), *** short tons of CAAS in 2016 (the equivalent of *** percent of its domestic production), *** short tons in 2017 (the equivalent of *** percent of its domestic production), and *** short tons in interim 2017 (the equivalent of *** percent of its domestic production); *** did not import CAAS from China in interim 2018.[62] *** stated that its reason for its *** volume of imports was to ***.[63] The company *** the imposition of duties.[64]

The *** size of *** imports relative to its domestic production indicates that its principal interest lies in domestic production. Also, no party has argued that *** be excluded from the definition of the domestic industry. Accordingly, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

III-4 n.2, PR at III-3 n.2. Therefore, Arconic does not meet the relevant statutory definition of a related party. *See* 19 U.S.C. § 1677(4)(B)(ii)(I).

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

[58] CR at III-3 n.2, PR at III-2-3 n.2; *** U.S. Producer Questionnaire at II-7; Proprietary Customs Data (EDIS Doc. 662715).

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

[60] Even assuming that *** was a related party by virtue of its affiliation with *** U.S. production is considerably larger than U.S. imports of CAAS by its affiliate, underscoring that *** principal interest remains in domestic production. Imports of subject merchandise by *** were *** short tons in 2015 (the equivalent of *** percent of *** domestic production), *** short tons in 2016 (the equivalent of *** percent of *** domestic production), *** short tons in 2017 (the equivalent of *** percent of *** domestic production), *** short tons in interim 2017 (the equivalent of *** percent of *** domestic production, and *** short tons in interim 2018 (the equivalent of *** percent of *** domestic production). CR/PR at Table III-12.

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

[62] CR/PR at Table III-12.

[63] CR/PR at Table III-12.

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

For the above reasons, we define the domestic industry to include all domestic producers of CAAS.

IV. Material Injury by Reason of Subject Imports[65]

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[66] 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.[67] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[68] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[69] 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."[70]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[71] it does not define the phrase "by reason of," indicating that this aspect of the injury

[65] Section 771(24) of the Tariff Act, which defines "negligibility," provides, with exceptions not pertinent here, that imports from a subject country that are 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 self-initiation, as the case may be, shall be deemed negligible. 19 U.S.C. § 1677(24)(A)(i).

Negligibility is not an issue in these investigations. Subject imports from China accounted for 38.9 percent of total U.S. imports of CAAS in the 12-month period (December 2016 through November 2017) preceding when the Commission deemed notice of the initiation of these investigations to have been filed. CR at IV-16, PR at IV-14.

[66] 19 U.S.C. §§ 1671d(b), 1673d(b). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of material injury and threat of material injury by reason of subject imports in certain respects.

[67] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[68] 19 U.S.C. § 1677(7)(A).

[69] 19 U.S.C. § 1677(7)(C)(iii).

[70] 19 U.S.C. § 1677(7)(C)(iii).

[71] 19 U.S.C. §§ 1671d(a), 1673d(a).

analysis is left to the Commission's reasonable exercise of its discretion.[72] 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.[73]

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.[74] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[75] Nor does

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[72] *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).

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

[74] Uruguay Round Agreements Act Statement of Administrative Action (SAA), H.R. Rep. 103-516, vol. I at 851–52 (1994) ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); *accord Mittal Steel*, 542 F.3d at 877.

[75] 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

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.[76] It is clear that the existence of injury caused by other factors does not compel a negative determination.[77]

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."[78] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[79]

The Federal Circuit's decisions in *Gerald Metals, Bratsk*, and *Mittal Steel* all involved cases where the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[80] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit

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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.").

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

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

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

[79] *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.").

[80] *Mittal Steel*, 542 F.3d at 875–79.

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

Mittal Steel clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[81] 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.[82]

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.[83] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[84]

B. Conditions of Competition and the Business Cycle

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

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[81] *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).

[82] 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.

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

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

1. Demand Conditions

CAAS is used in a broad variety of applications, the principal ones being construction, automotive, energy, marine, and aerospace.[85] End uses for CAAS include roof coil, common alloy coil, auto heat shields, commercial transportation equipment, residential siding, gutters and downspouts, general fabrication, and HVAC equipment.[86] Demand for CAAS depends on demand for U.S.-produced products in these downstream sectors.[87]

Most U.S. producers, importers, and purchasers reported an increase in U.S. demand for CAAS since January 1, 2015.[88] Apparent U.S. consumption of CAAS increased from 2.0 million short tons in 2015 to 2.1 million short tons in 2016 and 2.2 million short tons in 2017; it was higher in interim 2018, at 1.15 million short tons, than in in interim 2017, at 1.12 million short tons.[89]

2. Supply Conditions

The domestic industry supplied the largest share of the U.S. market during the POI. The domestic industry's market share declined from 59.9 percent of apparent U.S. consumption in 2015 to 59.6 percent in 2016 and 54.5 percent in 2017.[90] The domestic industry's market share was lower in interim 2018, at 55.6 percent, than in interim 2017, at 55.9 percent.[91] In 2017, six domestic producers accounted for more than *** percent of U.S. production of CAAS.[92] The domestic industry's reported capacity was relatively stable and below apparent U.S. consumption throughout the POI.[93]

There were several notable developments affecting the operations of the domestic industry during the POI. Three producers (***) reported acquisitions and/or consolidations,[94] while four producers (***) reported reorganizations, prolonged shutdowns, or production curtailments.[95] Aleris, the *** domestic producer of CAAS in 2017, reported that it had a

[85] CR/PR at II-1.

[86] CR at II-8, PR at II-5-6.

[87] CR/PR at II-1; CR at II-8, PR at II-5.

[88] CR/PR at Table II-4. Six out of 9 U.S. producers, 26 of 42 U.S. importers, and 23 of 31 U.S. purchasers reported that U.S. demand for CAAS increased since January 1, 2015. *Id*.

[89] CR/PR at Tables IV-10, C-1.

[90] CR/PR at Table IV-10.

[91] CR/PR at Table IV-10.

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

[93] CR/PR at Tables III-5, IV-10, and C-1. The domestic industry's capacity was 1,675,550 short tons in 2015, 1,674,300 short tons in 2016, 1,623,622 short tons in 2017, 836,474 short tons in interim 2017, and 848,768 short tons in interim 2018. CR/PR at Tables III-5, C-1. As discussed above, annual apparent U.S. consumption of CAAS during the POI ranged from 2.0 million to 2.2 million short tons. CR/PR at Tables IV-10, C-1.

[94] CR/PR at Table III-4.

[95] CR/PR at Table III-4. In 2016, Alcoa, Incorporated ("Alcoa Inc."), announced that it was splitting into two separate companies, Alcoa Corporation ("Alcoa Corp.") and Arconic, Inc. ("Arconic"). CR/PR at Table III-3; CR at III-5, PR at III-3. Under this arrangement, Alcoa Corp. retained Alcoa, Inc.'s

planned two-month outage of its hot mill operations in Lewisport, Kentucky during the second half of 2017, which affected the company's CAAS production.[96]

Subject imports from China were the largest individual source of import supply in the U.S. market during the POI.[97] Subject imports' share of apparent U.S. consumption was 14.7 percent in 2015 and 2016, and then increased to 17.9 percent in 2017.[98] Subject imports' market share was lower in interim 2018, at 12.8 percent, than in interim 2017, at 18.0 percent.[99]

Nonsubject imports' share of apparent U.S. consumption increased from 25.4 percent in 2015 to 25.7 percent in 2016 and 27.6 percent in 2017.[100] Nonsubject imports' share of apparent U.S. consumption was higher in interim 2018, at 31.6 percent, than in interim 2017, at 26.1 percent.[101] In 2017, the largest sources of nonsubject imports were Canada and Indonesia.[102]

3. Substitutability and Other Conditions

There is a moderate to high degree of substitutability between domestically produced CAAS and CAAS imported from China.[103] All ten domestic producers reported that the domestic like product and the subject imports were always or frequently interchangeable.[104] Most importers (26 of 39) and purchasers (23 of 30) also reported that the domestic like product and subject imports were always or frequently interchangeable.[105] Pluralities or majorities of purchasers reported that the domestic product and subject imports were comparable with respect to 11 of 16 purchasing factors.[106]

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upstream assets as well as Alcoa Warwick, while Arconic acquired most of the former company's downstream assets, including most of Alcoa Inc.'s aluminum rolling facilities. *Id*. On October 1, 2018, Arconic announced that it would sell its aluminum rolling mill facility in Texarkana, Texas to the U.S. subsidiary of subject producer Ta Chen Stainless Pipe Co., Ltd. CR/PR at Tables III-1, III-3; CR at III-8, PR at III-6.

Aleris's planned acquisition by a foreign producer, originally announced in August 2016, was suspended in November 2017 after failing to obtain approval from the U.S. Committee on Foreign Investment in the United States. CR/PR at Tables III-3, III-4. On July 26, 2018, Aleris announced that it was being acquired by Novelis, another domestic producer of CAAS. CR/PR at Tables III-1, III-3; CR at III-7, PR at III-6.

[96] CR/PR at Table III-4; CR at III-12-13, PR at III-8.

[97] CR/PR at Tables IV-2, IV-3.

[98] CR/PR at Tables IV-10, C-1.

[99] CR/PR at Tables IV-10, C-1.

[100] CR/PR at Tables IV-10, C-1.

[101] CR/PR at Tables IV-10, C-1.

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

[103] CR at II-13, PR at II-9.

[104] CR/PR at Table II-10.

[105] CR/PR at Table II-10.

[106] CR/PR at Table II-9. Majorities of purchasers found the domestic product superior to the subject imports with respect to delivery times and technical support, and pluralities or majorities of

During the POI, domestically produced CAAS and subject imports were present in substantial quantities for various alloy series, widths, and gauge categories across similar product ranges.[107] Accordingly, the record does not suggest that these factors limited the substitutability between subject imports and the domestic like product to a significant degree.

The record also shows that price is among the most important factors in purchasing decisions for CAAS. Purchasers most frequently cited price, quality, and availability as being among the three most important factors in purchasing decisions.[108] Moreover, a large majority of responding U.S. purchasers reported that price was a very important factor in purchasing decisions.[109] The majority of U.S. purchasers of CAAS (23 of 35) reported that they usually purchase the lowest-priced product.[110]

The primary raw material used to manufacture CAAS is unwrought aluminum.[111] Domestic producers' prices for CAAS generally consist of three components: an indexed price of aluminum such as the London Metal Exchange ("LME") price, the Midwest premium,[112] and a fabrication fee.[113] The LME price of aluminum fluctuated over the POI, declining by *** percent from January 2015 to November 2015, increasing by *** percent from November 2015 to May 2018, and decreasing by *** percent from May 2018 to June 2018, ending the period higher than in January 2015.[114] The Midwest premium also fluctuated throughout the POI, declining by *** percent from January 2015 to October 2015, increasing by *** percent from October 2015 to May 2018, and declining by *** percent for the remainder of the POI and also ending the period higher than in January 2015.[115] The LME plus Midwest premium price of aluminum decreased by *** percent from January 2015 to November 2015, increased by *** percent from November 2015 to May 2018, and declined *** percent through the end of the POI,

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purchasers found the domestic product inferior to subject Imports with respect to availability, availability of wide-width CAAS, and price. *Id*.

[107] CR/PR at Tables III-8 to III-10, IV-5 to IV-7, and V-4 to V-11.

[108] CR/PR at Table II-6.

[109] CR/PR at Table II-7. U.S. producers, importers, and purchasers were asked to assess how often factors other than price were significant between domestically produced CAAS and subject imports. While all producers reported that differences other than price were never a factor, all purchasers and most importers reported that differences other than price were always, frequently, or sometimes significant. CR/PR at Table II-12.

[110] CR at II-15, PR at II-10.

[111] CR/PR at V-1. The term "unwrought" refers to both primary and secondary unwrought aluminum. *See* CR/PR at V-1. Although unwrought aluminum is the primary raw material used in the production of CAAS, during the direct chill casting process, CAAS is produced by further rolling certain thicker gauge flat-rolled wrought products such as plate and sheet. *See* CR at I-23, PR at I-17-18.

[112] The Midwest premium is a daily premium to the LME price applicable to U.S. wrought aluminum producers; it is based on physical spot deals, bids, and offers reported through a daily survey of spot buyers and sellers, and uses a representative sample of producers, traders, and different types of end users. CR/PR at V-1 & n.1. It reflects both deliveries to a typical freight consumer in a broad U.S. Midwest region via truck or rail as well as the transaction costs. CR/PR at V-1 n.1.

[113] CR at V-5, PR at V-3.

[114] CR/PR at V-1, Figure V-1.

[115] CR/PR at V-1 n.2.

ending the period higher than in January 2015.[116] The price of aluminum scrap, which is also a raw material input in the production of CAAS,[117] fluctuated but increased slightly overall over the POI.[118] U.S. producers and U.S. importers reported mixed experiences with raw material costs since January 1, 2015.[119] The cost of raw materials used to produce CAAS, as a share of U.S. producers' total cost of goods sold ("COGS"), declined from 67.6 percent in 2015 to 64.5 percent in 2016, and then increased to 67.5 percent in 2017; this ratio was higher in interim 2018, at 70.0 percent, than in interim 2017, at 67.8 percent.[120]

U.S. producers' shipments of domestically produced CAAS were sold primarily on the basis of annual and long-term contracts, with a smaller percentage being spot sales.[121] By comparison, U.S. importers' shipments of subject imports most frequently occurred on the spot market, followed by short-term contracts.[122]

Additional tariffs of 10-percent *ad valorem* were imposed on certain aluminum products, including CAAS, in March 2018 under Section 232 of the Trade Expansion Act of 1962, as amended ("Section 232 tariffs").[123] The Secretary of Commerce may grant product-specific exclusions from Section 232 tariffs subject to an appeal process,[124] and on June 20, 2018, Commerce announced its first set of product exclusions. Information in the record indicates that Commerce has granted the large majority of exclusion requests for various aluminum sheet products, including CAAS.[125]

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[116] CR/PR at V-2; CR/PR at Figure V-1.

[117] CR at V-3, PR at V-2.

[118] CR at V-3, PR at V-2; CR/PR at Figure V-2. The price of aluminum scrap declined by *** percent from January 2015 to December 2015, but then increased by *** percent from December 2015 to June 2018. CR at V-3, PR at V-2.

[119] CR/PR at V-1. The vast majority of responding U.S. producers (8 of 10) reported that raw material costs had fluctuated, while the majority of importers and purchasers reported that raw material costs had increased since 2015. *Id*.

[120] CR/PR at Table VI-1.

[121] During 2017, U.S. producers reported selling *** percent of their U.S. commercial shipments through annual contracts, *** percent through long-term contracts, *** percent on the spot market, and *** percent through short-term contracts. CR/PR at Table V-3.

[122] During 2017, U.S. importers reported selling *** percent of their U.S. commercial shipments on the spot market, *** percent through short-term contracts, *** percent through annual contracts, and *** percent through long-term contracts. CR/PR at Table V-3.

[123] CR at I-7 to I-9, PR at I-5 to I-6. Section 232 authorizes the Secretary of Commerce to conduct investigations to determine the effects of imports on the national security of the United States and authorizes the President to take action to restrict such imports. *See* 19 U.S.C. § 1862.

[124] Requirements for Submissions Requesting Exclusions From the Remedies Instituted in Presidential Proclamations Adjusting Imports of Steel Into the United States and Adjusting Imports of Aluminum Into the United States; and the Filing of Objections to Submitted Exclusion Requests for Steel and Aluminum; Interim Final Rule, 83 Fed. Reg. 12106-12112 (Mar. 19, 2018).

[125] Of the 981 exclusion requests that have been reviewed by Commerce's Bureau of Industry and Security as of November 7, 2018, 839 have been approved and 142 have been denied. There have been 69 requests for automotive sheet (of which 6 have been approved), 35 requests for can stock (of

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."[126]

Subject imports had a significant and increasing presence in the U.S. market during the POI, particularly from 2016 to 2017.[127] The volume of subject imports increased from 296,495 short tons in 2015 to 303,270 short tons in 2016 and 390,905 short tons in 2017.[128] Subject imports' share of apparent U.S. consumption was 14.7 percent in 2015 and 2016 and then increased to 17.9 percent in 2017.[129] Subject imports captured market share directly at the expense of the domestic industry between 2015 and 2017,[130] particularly from 2016 to 2017 when subject imports' market share increased by 3.2 percentage points and the domestic industry's market share declined by 5.1 percentage points.[131]

While subject imports' volume and market share both were lower in interim 2018 than in interim 2017, the parties agree that these declines were a function of the pendency of these investigations and the imposition of Section 232 tariffs on aluminum products, including

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which 20 have been approved), and 393 requests for other aluminum sheet products, including CAAS (of which 377 have been approved). CR at I-9, PR at I-6.

[126] 19 U.S.C. § 1677(7)(C)(i).

[127] The Domestic Interested Parties argue that the Commission should rely upon official import statistics rather than U.S. importer questionnaire data for purposes of analyzing subject import volume. *See, e.g.,* Domestic Interested Parties' Final Comments at 12. Respondents, however, urge the Commission to rely on only questionnaire data for analyzing subject import volume. *See, e.g.*, NMMA Prehearing Br. at 23; NMMA Posthearing Br., Exh. 1. at 9-11. We have relied on official import statistics for import volumes in the final phase of these investigations. *See* CR at I-5, PR at I-4; CR/PR at Table IV-2. Although our questionnaire coverage for imports of CAAS was high, *see* CR at I-5, PR at I-4, coverage varied on an annual basis and we therefore concluded that official import statistics better reflect changes in import volume trends during the POI. As discussed below, regardless of which data source is used, both official import statistics and questionnaire data indicate that subject import quantity grew from 2015 to 2017 and that subject imports captured market share from the domestic industry during this period. CR/PR at Tables IV-10, C-1, C-7.

[128] CR/PR at Tables IV-2, C-1. Based on questionnaire data, the volume of subject imports increased from 272,284 short tons in 2015 to 282,551 short tons in 2016 and 347,921 short tons in 2017. CR/PR at Table C-7.

[129] CR/PR at Tables IV-10, C-1. Based on questionnaire data, subject imports' share of apparent U.S. consumption was 14.3 percent in 2015, 14.2 percent in 2016, and 16.7 percent in 2017. CR/PR at Table C-7.

[130] CR/PR at Tables IV-10, C-1. As a share of U.S. apparent consumption, the domestic industry's market share declined by 5.4 percentage points from 2015 to 2017, from 59.9 percent in 2015 to 59.6 percent in 2016 and 54.5 percent in 2017. *Id*.

[131] CR/PR at Tables IV-10, C-1.

CAAS.[132] Thus, we have given principal weight to the full year data (*i.e.*, 2015-2017) for purposes of our volume analysis.

In light of the foregoing, we find that the volume of subject imports and the increase in that volume are significant in both absolute terms and relative to consumption.[133]

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.[134]

As discussed above, there is a moderate-to-high degree of substitutability between subject imports and the domestic like product and price is an important factor in purchasing decisions. The Commission collected quarterly pricing data on eight pricing products.[135] Five domestic producers and 13 importers of subject merchandise provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[136] Pricing data reported by these firms accounted for approximately 2.2 percent of domestic producers' U.S. commercial shipments during the POI and 21.8 percent of U.S. commercial shipments of subject imports.[137]

The pricing data show that subject imports undersold the domestic like product in 82 of 98 quarterly comparisons, or 83.7 percent of comparisons, at margins ranging from 0.2 percent to 16.9 percent.[138] The volume of subject imports involved in quarters with underselling (403.1

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[132] Domestic Interested Parties' Prehearing Br. at 37-39; NMMA Prehearing Br. at 46-47; Chinese Respondents' Prehearing Br. at 63-64.

[133] Respondents maintain that any increase in the volume of subject imports was not significant because the domestic industry had capacity constraints and could not supply the U.S. market as demand for CAAS increased steadily during the POI. *See, e.g.*, NMMA Prehearing Br. at 24-31. We have addressed Respondents' argument on this issue below in section IV.D in our analysis of impact.

[134] 19 U.S.C. § 1677(7)(C)(ii).

[135] Product 1 is Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide. Product 2 is Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide. Product 3 is Alloy 5052, H-32 temper, 0.125 inch thickness, 48 inches wide. Product 4 is Alloy 5052, H-32 temper, 0.125 inch thickness, 60 inches wide. Product 5 is Alloy 3003, H-14 temper, 0.090 inch thickness, 48 inches wide. Product 6 is Alloy 3003, H-14 temper, 0.125 inch thickness, 48 inches wide. Product 7 is Alloy 3003, H-14 temper, 0.125 inch thickness, 60 inches wide. Product 8 is Alloy 3003 modified, 4343 5% one side clad, O temper, 0.063 inch thickness, 24 inches wide. CR at V-8-9, PR at V-5.

[136] CR at V-9, PR at V-5.

[137] CR at V-9, PR at V-5.

[138] CR/PR at Table V-14.

million pounds) is substantially larger than the volume involved in the quarters with overselling (55.8 million pounds).[139] [140]

Lost sales data further support a finding that subject imports were often priced lower than the domestic like product and also show that subject imports gained sales and market share from the domestic industry as a result of the lower prices. Of 28 responding purchasers, 22 reported that they had purchased subject imports rather than the domestically produced product since 2015; 21 of these purchasers reported that subject imports were priced lower than the domestically produced product, and 17 reported that price was a primary reason for their decision to purchase subject imports rather than the domestic like product.[141] These 17 purchasers reported purchasing a total of *** short tons of CAAS from subject sources instead of domestically produced CAAS because of the lower price.[142] Moreover, from 2015 to 2017, the subject imports gained 3.2 percentage points of market share, all of which was gained at the expense of the domestic industry.[143]

Given the moderate to high degree of substitutability between the domestic like product and the subject imports, the importance of price in purchasing decisions, the predominant underselling on a quarterly and volume basis, and the substantial number of lost sales and resulting market share shifts, we find that the underselling by subject imports was significant over the POI.[144]

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[139] CR/PR at Table V-13. This underselling was concentrated in Product 3 and, to a lesser extent, in Products 1, 2, 4, 6, and 7. CR/PR at Table V-14. There were no subject imports of Product 8. CR/PR at Tables V-11, V-14.

[140] Further, the margins of underselling generally increased during the POI, reaching their highest level in 2017. *See, e.g.*, CR/PR at Tables V-4-10. Of the 16 quarters of overselling observed for the eight pricing products, 10 instances occurred within the first 5 quarters of the POI and the remaining 6 instances occurred in the final quarter of the POI when Section 232 tariffs and preliminary duties were affecting the market. *Id*.

[141] CR/PR at Table V-16 (INV-QQ-146, Dec. 4, 2018).

[142] CR/PR at Table V-16 (INV-QQ-146, Dec. 4, 2018).

[143] CR/PR at Table IV-10. As previously discussed, subject import volumes declined in interim 2018 due to the pendency of these investigations and the imposition of Section 232 tariffs.

[144] Respondents argue that the underselling by subject imports cannot be found to be significant because the pricing product coverage is too low and therefore unrepresentative. *See, e.g.*, NMMA Prehearing Br. at 34-36. We do not agree. We would expect there to be constraints on the pricing product coverage in light of the broad product range for CAAS, with substantial variations in alloy series, gauges, and widths. Indeed, pricing product coverage in this range is not uncommon in Commission investigations concerning highly varied products. *See, e.g.*, *Certain Iron Mechanical Transfer Drive Components from Canada and China*, Inv. Nos. 701-TA-550 & 731-TA-1304-05, USITC Pub. 4652 at 40 (Final) (Dec. 2016). We also note that seven of the eight pricing products are based on the two most common aluminum alloys (*i.e.*, Alloys 3003 and 5052). CR/PR at Tables V-4 to V-11. Moreover, Respondents did not suggest additional or alternative pricing products for the final phase of these investigations. *See generally*, Chinese Respondents' Questionnaire Comments & NMMA's Questionnaire Comments.

We reject Respondents' assertion that subject import underselling is due to producers of subject merchandise having an inherent advantage over U.S. producers of CAAS because only the latter include

We have also considered price trends during the period of investigation. Prices fluctuated but increased overall for all eight domestically produced pricing products, with increases ranging 4.4 percent to 8.4 percent between January 2015 and June 2018.[145]

During 2017, however, price increases were not commensurate with rising costs. The domestic industry's ratio of COGS to net sales increased by 3.0 percentage points from 2016 to 2017, from 91.0 percent to 94.0 percent,[146] as the domestic industry's unit COGS (which reflected increases in all components) increased more rapidly than the AUV for net sales.[147] It was also during 2017 that subject imports reached their peak volume for the POI while continuing to undersell pervasively.[148] Because both costs and U.S. demand for CAAS increased from 2016 to 2017, the domestic industry could realistically have expected to institute price increases over this period.[149] We also observe that the fabrication charge component of U.S. producers' prices, which is independent of raw materials and is the one element of price subject to negotiation by market participants,[150] declined on an overall basis from 2016 to 2017, notwithstanding that domestic producers' unit costs not related to raw materials

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the Midwest premium in their CAAS sales price. *See, e.g.*, NMMA Prehearing Br. at 40-42. The record indicates that prices for aluminum in other countries also incorporate a regional premium comparable to the Midwest Premium, such as the Shanghai Metal Exchange Premium in China. *See, e.g.*, Domestic Interested Parties' Posthearing Br. at 9-10, Exh. 1 at 58-61, & Exhs. 12-14; Hearing Tr. at 120-21 (Stemple); Platts Monthly Reports (EDIS Doc. No. 661656). We also observe that the statute "requires the Commission to assess whether imports are being sold by importers in the U.S. market at lower prices than the domestic like product, not to compare the cost of production of foreign producers with the cost of production in the United States." *See Certain Polyester Staple Fiber from China*, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 (June 2007) at 9, n.119. *See also Steel Wire Garment Hangers from China*, Inv. No. 731-TA-1123 (Final), USITC Pub. 4034 (Sept. 2008) at 19-20, n.133.

[145] CR/PR at Table V-12. Prices for subject imports of the pricing products increased between 11.2 percent and 48.2 percent during the POI. *Id*. With respect to both domestically produced CAAS and subject imports, prices generally declined in 2015, remained at low levels in 2016, and then increased in 2017 and interim 2018. CR at V-26, PR at V-22.

[146] CR/PR at Tables VI-1, C-1. The domestic industry's COGS to net sales ratio declined from 93.4 percent in 2015 to 91.0 percent in 2016, and then increased to 94.0 percent in 2017, for an overall increase of 0.6 percentage points from 2015 to 2017. CR/PR at Table VI-1. The ratio was lower in interim 2018, at 90.1 percent, than in interim 2017, at 92.0 percent. *Id*.

[147] The domestic industry's unit COGS increased by $444 per short tons from 2016 to 2017, from $2,312 per short ton to $2,756 per short ton. CR/PR at Table VI-1. Each of the three elements of COGS (raw materials, direct labor, and other factory costs) increased on a unit basis from 2016 to 2017. *Id*. The domestic industry's AUV for net sales increased by only $391 per short ton from 2016 to 2017, from $2,541 per short ton to $2,932 per short ton. *Id*.

[148] CR/PR at Tables IV-10, V-4 to V-10 (in 2017, subject imports undersold the domestic like product in all 28 quarterly comparisons and underselling margins rose for most pricing products), C-1.

[149] Apparent U.S. consumption of CAAS increased by 5.8 percent from 2016 to 2017, from 2.1 million short tons to 2.2 million short tons. CR/PR at Tables IV-10, C-1.

[150] *See, e.g.*, CR at VI-18 n.8, PR at VI-6 n.8; Domestic Interested Parties Posthearing Br. at 9-10; Hearing Tr. at 120-121, 136 (Stemple) & 143 (Keown); Staff Verification Report for Aleris at 3 n.6 (Oct. 15, 2018) (EDIS Doc. 658944).

increased during that time.[151] We find the 2017 data are particularly pertinent in light of the fact that this is the most recent period before the institution of these investigations and the resulting decline in subject import volumes. The volume of subject imports and the margins of underselling also reached their peak in 2017.[152]

In light of these considerations, we find that the significant and increasing volume of low-priced subject imports had the effect of preventing price increases that would otherwise have occurred to a significant degree. We therefore conclude that subject imports had significant price effects.

E. Impact of the Subject Imports[153]

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[154] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[155]

Despite increasing U.S. demand for CAAS throughout the POI, the domestic industry's output and financial performance indicators declined overall from 2015 to 2017 and its employment indicators were mixed. The domestic industry's performance indicators declined most sharply from 2016 to 2017 as the domestic industry lost sales, market share, and revenue due to low priced subject imports that were at peak volumes and suppressed domestic prices.

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[151] CR/PR at Tables V-1, IV-10, C-1, VI-1, VI-2; CR at V-1-2, PR at V-1-2.

[152] CR/PR at Tables V-4 to V-10, C-1.

[153] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination of sales at less than fair value, Commerce found dumping margins of 49.85 to 59.72 percent for subject imports from China. *Antidumping Duty Investigation of Common Alloy Aluminum Sheet from the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value,* 83 Fed. Reg. 57421, 57423 (Nov. 15, 2017). We take into account in our analysis the fact that Commerce has made final findings that all subject producers in China are selling subject imports in the United States at less than fair value. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant underselling and price effects of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

[154] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[155] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

Although most of the domestic industry's performance indicators improved in interim 2018, these improvements coincided with the decline in subject imports following Commerce's initiation of these investigations.

Most of the domestic industry's output indicia fluctuated but declined overall from 2015 to 2017, with the sharpest declines from 2016 to 2017. Capacity declined from 1,675,550 short tons in 2015 to 1,674,300 short tons in 2016 and 1,623,622 short tons in 2017; it was 836,474 short tons in interim 2017 and 848,768 short tons in interim 2018.[156] Production increased from 1,322,116 short tons in 2015 to 1,357,023 short tons in 2016, but then declined to 1,320,581 short tons in 2017; it was 687,733 short tons in interim 2017 and 701,796 short tons in interim 2018.[157] Since capacity declined more than production, the domestic industry's capacity utilization increased from 78.9 percent in 2015 to 81.1 percent in 2016 and 81.3 percent in 2017; it was 82.2 percent in interim 2017 and 82.7 percent in interim 2018.[158]

U.S. shipments increased from 1,207,766 short tons in 2015 to 1,230,301 short tons in 2016, but then declined to 1,191,255 short tons in 2017; they were 624,992 short tons in interim 2017 and 636,803 short tons in interim 2018.[159] The domestic industry's share of apparent U.S. consumption declined from 59.9 percent in 2015 to 59.6 percent in 2016 and 54.5 percent in 2017; it was 55.9 percent in interim 2017 and 55.6 percent in interim 2018.[160] The domestic industry's end-of-period ("EOP") inventories increased from 150,504 short tons in 2015 to 167,218 short tons in 2016 and 186,837 short tons in 2017; they were 179,839 short tons in interim 2017 and 189,473 short tons in interim 2018.[161]

Trends in the domestic industry's employment indicators were mixed from 2015 to 2017. The number of production and related workers ("PRWs") declined irregularly from 2015 to 2017.[162] Worker productivity fluctuated from 2015 to 2017, ending at the same level in 2017 as in 2015.[163] Total hours worked and hours worked per PRW fluctuated but increased overall

[156] CR/PR at Table III-5, C-1. We recognize that the modest declines in the domestic industry's capacity during the POI (particularly in 2017) may be due to reported shutdowns or curtailments by various domestic producers, including Aleris's idling of its Lewisport facility in the second half of 2017. CR/PR at Tables III-4, III-5; CR at III-12, PR at III-8.

[157] CR/PR at Table III-5, C-1.

[158] CR/PR at Table III-5, C-1.

[159] CR/PR at Tables III-7, III-8, C-1.

[160] CR/PR at Tables IV-10, C-1.

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

[162] CR/PR at Table III-13. The number of PRWs decreased from 5,055 in 2015 to 5,005 in 2016, and then increased to 5,032 in 2017; it was 4,917 in interim 2017 and 4,921 in interim 2018. *Id.*

[163] Productivity was 118.8 short tons per hour in 2015, 121.3 short tons per hour in 2016, 118.2 short tons per hour in 2017, 121.4 short tons per hour in interim 2017, and 121.4 short tons per hour in interim 2018. CR/PR at Table III-13.

from 2015 to 2017.[164] Wages paid, hourly wages, and unit labor costs increased from 2015 to 2017.[165]

Most of the domestic industry's financial performance indicators fluctuated but declined overall from 2015 to 2017, with a sharp decline from 2016 to 2017. Sales revenues declined from $3.7 million in 2015 to $3.4 million in 2016, and then increased to $3.8 million in 2017; they were $1.9 million in interim 2017 and $2.3 million in interim 2018. Total COGS declined from $3.4 million in 2015 to $3.1 million in 2016, and then increased to $3.6 million in 2017; they were $1.8 million in interim 2017 and $2.1 million in interim 2018.[166] Gross profits increased from $243.8 million in 2015 to $306.9 million in 2016, but then declined to $229.9 million in 2017; they were $154.0 million in interim 2017 and $225.6 million in interim 2018.[167] Operating income increased from $65.3 million in 2015 to $98.2 million in 2016, but then declined to $25.6 million in 2017; it was $53.4 million in interim 2017 and $146.5 million in interim 2018.[168] As a ratio to net sales, the domestic industry's operating income increased from 1.8 percent in 2015 to 2.9 percent in 2016, but then declined to 0.7 percent in 2017; it was 2.8 percent in interim 2017 and 6.4 percent in interim 2018.[169] The domestic industry had a net loss of $27.0 million in 2015, net income of $18.8 million in 2016, and a net loss of $75.6 million in 2017; its net income was $11.8 million in interim 2017 and $82.2 million in interim 2018.[170] The domestic industry's capital expenditures and research and development expenses increased irregularly from 2015 to 2017.[171]

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[164] Total hours worked increased from 11,131 hours in 2015 to 11,190 hours in 2016, and then declined to 11,175 hours in 2017; they were 5,665 hours in interim 2017 and 5,781 hours in interim 2018. Hours worked per PRW increased from 2,202 hours in 2015 to 2,236 hours in 2016, and then declined to 2,221 hours in 2017; they were 1,152 hours in interim 2017 and 1,175 hours in interim 2018. CR/PR at Table III-13.

[165] Wages paid increased from $324.2 million in 2015 to $338.9 million in 2016 and $359.0 million in 2017; they were $177.1 million in interim 2017 and $194.1 million in interim 2018. Hourly wages increased from $29.13 per hour in 2015 to $30.29 per hour in 2016 and $32.13 per hour in 2017; they were $31.27 per hour in interim 2017 and $33.57 per hour in interim 2018. Unit labor costs increased from $245 per short ton in 2015 to $250 per short ton in in 2016 and $272 per short ton in 2017; they were $258 per short ton in interim 2017 and $277 per short ton in interim 2018. CR/PR at Table III-13.

[166] CR/PR at Table VI-1.

[167] CR/PR at Table VI-1.

[168] CR/PR at Table VI-1.

[169] CR/PR at Table VI-1.

[170] CR/PR at Table VI-1.

[171] Capital expenditures declined from $175.1 million in 2015 to $172.9 million in 2016, but then increased to $186.0 million in 2017; they were $84.9 million in interim 2017 and $54.9 million in interim 2018. CR/PR at Table VI-5. The domestic industry's research and development expenses increased from $7.7 million in 2015 to $8.4 million in 2016, but then declined to $8.1 million in 2017; they were $4.0 million in interim 2017 and $4.2 million in interim 2018. *Id*. The industry's total net assets declined from $2.2 billion in 2015 to $2.1 billion in 2016, but then increased to $2.4 billion in 2017. CR/PR at Table VI-6. The domestic industry's return on assets, expressed as operating income as a share of total

The large and increasing volume of low-priced subject imports caused the domestic industry to lose sales and market share during the POI, particularly from 2016 to 2017 when subject imports captured 3.2 percentage points of market share from the domestic industry.[172] We acknowledge that not every domestic industry indicator declined from 2015 to 2017, and employment indicators, in particular, showed mixed trends. Nevertheless, by taking sales and market share from the domestic industry, and suppressing prices in 2017, the subject imports caused the domestic industry's output and revenues to be lower than they would have been otherwise. As a result, the domestic industry's financial performance, which was weak throughout the full years of the POI, sharply deteriorated from 2016 to 2017, when low-priced subject imports peaked and suppressed the domestic industry's prices for CAAS.[173] Although

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assets, increased from 3.0 percent in 2015 to 4.7 percent in 2016, but then declined to 1.0 percent in 2017. *Id*.

[172] CR/PR at Tables IV-10, C-1.

[173] Respondents argue that the declines in the domestic industry's financial performance during the POI were attributable to domestic producer Aleris's decision to idle its Lewisport facility for two months in the second half of 2017 and reorient its production operations away from CAAS by shifting its focus more to out-of-scope aluminum sheet for automotive applications. *See, e.g.*, Chinese Respondents' Prehearing Br. at 38-39; NMMA Prehearing Br. at 52-53. They argue that, when Aleris's financial data are excluded, the rest of the domestic industry was profitable throughout the POI and performed better in 2017 than in 2015. *See, e.g.*, NMMA Prehearing Br. at 52-53; NMMA Posthearing Br. at 8-10. As discussed above, Aleris is not a related party and no party has argued that it should not be included in the domestic industry. Moreover, under the statute, the Commission is charged with examining aggregate industry data for the domestic industry as a whole, including Aleris as the largest producer. *See* 19 U.S.C. § 1677(4)(A). We note that there is information in the record indicating that Aleris' experience was not unique; several other domestic producers experienced overall declines in their operating income and financial performance during the POI, particularly from 2016 to 2017. *See, e.g.*, CR/PR at Table VI-4. In addition, ***, indicating that it had the ability to make additional sales in 2017 despite the closure of the Lewisport facility. *See* Aleris's U.S. Producer Questionnaire at II-7. Therefore, the industry's reduced financial performance in 2017 cannot be entirely attributed to the two month closure of Aleris's Lewisport facility.

Respondents also argue that the Commission should compare semiannual periods for 2017, which according to Respondents show that subject imports did not have a significant impact because the declines in the domestic industry's market share and financial performance largely occurred during the second half of 2017 when subject import volumes also declined and the domestic industry's raw material costs increased. *See, e.g.*, NMMA Prehearing Br. at 48-50; Chinese Respondents' Prehearing Br. at 60-62. We reject Respondents' argument on this issue for several reasons. First, the record indicates that there was not an appreciable decline in subject imports' market share between the first half (18.0 percent) and second half (17.8 percent) of 2017. *Derived from* CR/PR at Tables IV-2, IV-10, C-1. Moreover, the record indicates that subject imports' pricing behavior between the first and second half of 2017 exhibited similar levels of underselling and underselling margins. CR/PR at Tables V-4 to V-10. We consequently do not accept the underlying premise of respondents' argument that conditions of competition concerning subject imports were meaningfully different in the second half of 2017 than in the first half of the year. We also note that the volume of subject imports in the second half of 2017, while lower than the first half of 2017, was still significantly larger than the prior year, as evidenced by the quarterly data submitted by Respondents. See NMMA Prehearing Br. at 50. By only focusing on the

most of the domestic industry's performance indicators improved in interim 2018, these improvements coincided with declines in subject import volumes and increases in prices following Commerce's initiation of these investigations and the imposition of Section 232 tariffs. We accordingly find that the subject imports had a significant impact on the domestic industry.

Respondents argue that insufficient domestic supply led to additional subject imports for various CAAS products, such as non-clad 3XXX and 5XXX series CAAS and wide-width CAAS.[174] There is information in the record indicating that the domestic industry had some supply constraints during the POI, including those reported by purchasers and other market participants,[175] those relating to Aleris's idling of its Lewisport facility for two months in the second half of 2017,[176] and those motivating certain domestic producers of CAAS to submit Section 232 product exclusion requests.[177] On the other hand, the domestic industry's end-of-period inventories increased during the POI, thereby indicating that the industry had some ability to increase supply.[178] Moreover, regardless of any supply constraints, purchasers stated that price was a primary factor in their decisions to purchase large volumes of subject imports instead of the domestic like product. Supply constraints also cannot explain the domestic industry's lost sales to subject imports or the fact that subject imports persistently undersold domestic product, leading subject imports to capture market share from the domestic industry, particularly from 2016 to 2017 when subject imports peaked and suppressed domestic prices despite increasing demand for CAAS.[179]

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domestic industry's market share loss within 2017, the Respondents' analysis ignores the significant drop in the domestic industry's market share between 2016 (59.6 percent) and the first half of 2017 (55.9 percent). *See, e.g.*, NMMA Prehearing Br. at 51; CR/PR at Table C-1. In any event, our typical methodology, which we have applied here, is to compare full calendar years with other full calendar years, and to compare partial calendar years, such as interim periods, with the same portion of prior (or subsequent years).

[174] *See, e.g.*, NMMA Prehearing Br. at 29-30.

[175] CR at II-6-7, PR at II-4-5.

[176] CR at II-6, PR at II-4; CR/PR at Table III-5.

[177] CR at I-9, PR at I-6; NMMA Posthearing Br. at 7-9; Chinese Respondents' Posthearing Br. a 4-7. We note that some of the Section 232 product exclusion requests referenced by the Respondents were submitted in relation to Novelis' production chain, under which hot-rolled CAAS produced in Oswego, New York is finished by an affiliated plant in Kingston, Ontario, then returned to the United States. *See, e.g.*, Domestic Interested Parties' Final Comments at 7; Domestic Interested Parties Posthearing Br. at 5, Exh. 3, Exh. 4.

[178] As discussed above, the domestic industry's end-of-period inventories increased from 150,504 short tons in 2015 to 167,218 short tons in 2016 and 186,837 short tons in 2017; they were higher in interim 2018, at 189,473 short tons, than in interim 2017, at 179,839 short tons. CR/PR at Table III-11. ***, accounted for the majority of the increase in the domestic industry's end-of-period inventories during the POI. CR at III-23, PR at III-16.

[179] Respondents also argue that the domestic industry imported significant quantities of nonsubject imports due to supply constraints (*E.g.*, NMMA Prehearing Br. at 27-28). The record indicates that the vast majority of U.S. producers' imports of CAAS from nonsubject sources during the POI were attributable to Novelis, which as discussed above imported nonsubject imports from Canada

Respondents also argue that there is attenuated competition between subject imports and the domestic like product because the domestic industry had a limited presence in the wide-width sector of the market and because subject imports are focused on product lines from which the domestic industry has shifted away, including non-clad 3XXX and 5XXX series CAAS, in favor of increasing production for out-of-scope aluminum sheet for automotive uses (*e.g.*, 6XXX alloy series).[180] With respect to wide-width CAAS, the evidence in the record does not support Respondents' claim that the domestic industry had a limited presence. Five U.S. producers reported U.S. shipments of wide-width CAAS and the domestic industry's production and U.S. shipments of wide-width CAAS increased throughout the POI; the domestic industry's market share in this market segment reached *** percent in 2017.[181] We also note that wide-width sheet makes up only a small part of the CAAS market, accounting for *** percent to *** percent of U.S. apparent consumption from 2015 to 2017.[182]

We also are not persuaded by Respondents' argument that the domestic industry does not compete with subject imports to a significant degree in non-clad 3XXX and 5XXX series CAAS because it is shifting production to out-of-scope products. The Domestic Interested Parties do not deny that the industry has increased production of out-of-scope aluminum sheet, but contends that this increase resulted from capacity expansions dedicated to the out-of-scope products rather than shifting capacity away from in-scope production.[183] Indeed, the record shows that the domestic industry increased its U.S. shipments of non-clad 3XXX series CAAS from 2015 to 2017 and that U.S. shipments of non-clad 5XXX series CAAS actually increased from 2016 to 2017 when the domestic industry as a whole was experiencing declines in U.S. shipments.[184]

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for its finishing operations rather than to supplement domestic production shortages. CR/PR at Table III-12. Moreover, even as the domestic industry's market share and financial performance declined from 2015 to 2017, U.S. producers' imports of CAAS from nonsubject sources remained relatively flat, at *** short tons in 2015 and *** short tons in 2017. *Derived from* CR/PR at Table III-12; CR/PR at Table VI-1, C-1.

[180] Chinese Respondents' Posthearing Br., Exh. 1 at 15.

[181] U.S. producers *** reported U.S. shipments of wide-width CAAS during the POI. CR at III-20, PR at III-14. U.S. producers' production of wide-width CAAS increased from *** short tons in 2015 to *** short tons in 2016 and *** short tons in 2017; it was higher in interim 2018, at *** short tons, than in interim 2017, at *** short tons. CR/PR at Table III-9. U.S. producers' U.S. shipments of wide-width CAAS increased from *** short tons in 2015 to *** short tons in 2016 and *** short tons in 2017; they were higher in interim 2018, at *** short tons, than in interim 2017, at *** short tons. *Id*. As a share of total U.S. shipments for wide-width CAAS, the domestic industry's market share increased from *** percent in 2015 to *** percent in 2016 and *** percent in 2017; it was higher in interim 2018, at *** percent, than in interim 2017, at *** percent. *Derived from* CR/PR at Tables III-9 and IV-6.

[182] Calculated from CR/PR at Tables III-9, IV-6.

[183] Domestic Interested Parties' Posthearing Br., Exh. 1 at 31-35. The record indicates that the domestic industry's increased production of out-of-scope 6XXX product was due largely to a single producer (Novelis). CR/PR at Table III-6; Domestic Interested Parties' Posthearing Br., Exh. 1 at 74.

[184] U.S. producers' U.S. shipments of non-clad 3XXX series CAAS were 668,926 short tons in 2015, 708,556 short tons in 2016, and 675,360 short tons in 2017; they were 346,218 short tons in interim 2017 and 368,348 short tons in interim 2018. CR/PR at Table III-8. U.S. producers' U.S.

We have also examined the role of nonsubject imports, to ensure that we have not attributed to the subject imports injury caused by other factors. While nonsubject imports increased their presence in the U.S. market during the POI, subject imports captured more market share from the domestic industry than did nonsubject imports between 2015 and 2017.[185] Information available indicates that imports of CAAS from Canada were the largest source of nonsubject imports during the POI and generally were priced higher than subject imports.[186] We also note that, while nonsubject import volume was higher in interim 2018 than in interim 2017, the majority of this increase went into importers' inventories and the domestic industry's condition improved.[187] Therefore, based on the current record, nonsubject imports cannot explain the magnitude of the domestic industry's lost sales and market share losses due to low-priced subject imports through 2017 or the observed declines in the domestic industry's financial performance over the same period. We also note that, in interim 2018, while nonsubject imports increased their market share and subject imports declined,[188] the domestic industry's financial performance improved during that period in a market environment that also included Section 232 tariffs.[189] [190]

V. Critical Circumstances

A. Legal Standards

In its final antidumping and countervailing duty determinations concerning subject imports from China, Commerce found that critical circumstances exist with respect to certain

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shipments of non-clad 5XXX series CAAS were 345,393 short tons in 2015, 331,599 short tons in 2016, and 331,894 short tons in 2017; they were 181,750 short tons in interim 2017 and 177,460 short tons in interim 2018. *Id*.

[185] CR/PR at Tables IV-10, C-1. Nonsubject imports' market share increased from 25.4 percent in 2015 to 27.6 percent in 2017, for an overall increase of 2.2 percentage points. *Id*. By contrast, subject imports' market share increased from 14.7 percent in 2015 to 17.9 percent in 2017, for an overall increase of 3.2 percentage points. *Id*. As discussed above, the domestic industry's market share declined by 5.4 percentage points from 2015 to 2017, from 59.9 percent in 2015 to 54.5 percent in 2017. *Id*.

[186] CR/PR at Table IV-3; CR at IV-6, PR at IV-5; CR/PR at Appendix F, Table F-8.

[187] CR/PR at Tables IV-10, VI-1, VII-7, C-1.

[188] As a share of apparent U.S. consumption, nonsubject imports' market share was higher in interim 2018, at 31.6 percent, than in interim 2017, at 26.1 percent. CR/PR at Tables IV-10, C-1. Subject imports' market share was lower in interim 2018, at 12.8 percent, than in interim 2017, at 18.0 percent. *Id*.

[189] CR at I-7-9, PR at I-5; CR/PR at Table V-1.

[190] Respondents argue that the improvements in the domestic industry's performance during interim 2018 were due to Section 232 tariffs in combination with the imposition of preliminary duties in these investigations. *See, e.g.*, NMMA Prehearing Br. at 46-47; Chinese Respondents' Prehearing Br. at 62. Thus, Respondents' argument admits a linkage between the domestic industry's improved financial performance in interim 2018 and the reduced presence of subject imports.

subject producers/exporters.[191] Because we have determined that the domestic industry is materially injured by reason of subject imports from China, we must further determine "whether the imports subject to the affirmative {Commerce critical circumstances} determination{s} . . . are likely to undermine seriously the remedial effect of the antidumping {and/or countervailing duty} order{s} to be issued."[192]

The SAA indicates that the Commission is to determine "whether, by massively increasing imports prior to the effective date of relief, the importers have seriously undermined the remedial effect of the order" and specifically "whether the surge in imports prior to the suspension of liquidation, rather than the failure to provide retroactive relief, is likely to seriously undermine the remedial effect of the order."[193] The legislative history for the critical circumstances provision indicates that the provision was designed "to deter exporters whose merchandise is subject to an investigation from circumventing the intent of the law by increasing their exports to the United States during the period between initiation of an investigation and a preliminary determination by {Commerce}."[194] An affirmative critical circumstances determination by the Commission, in conjunction with an affirmative determination of material injury by reason of subject imports, would normally result in the retroactive imposition of duties for those imports subject to Commerce's affirmative critical circumstances determination for a period 90 days prior to the suspension of liquidation.[195]

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

(I) the timing and the volume of the imports,

(II) a rapid increase in inventories of the imports, and

(III) any other circumstances indicating that the remedial effect of the {order} will be seriously undermined.[196]

In considering the timing and volume of subject imports, the Commission's practice is to consider import quantities prior to the filing of the petition with those subsequent to the filing of the petition using monthly statistics on the record regarding those firms for which Commerce has made an affirmative critical circumstance determination.[197]

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[191] *Commerce Final CVD Determination*, 83 Fed. Reg. at 57427, and *Commerce Final AD Determination*, 83 Fed. Reg. at 57422.

[192] 19 U.S.C. §§ 1671d(b)(4)(A)(i), 1673d(b)(4)(A)(i); 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii); 19 U.S.C. §§ 1671d(e)(2), 1673d(e)(2).

[193] SAA at 877.

[194] *ICC Industries, Inc. v. United States*, 812 F.2d 694, 700 (Fed. Cir. 1987), quoting H.R. Rep. No. 317, 96th Cong., 1st Sess. 63 (1979), *aff'g* 632 F. Supp. 36 (Ct. Int'l Trade 1986).

[195] *See* 19 U.S.C. §§ 1671b(e)(2), 1673b(e)(2).

[196] 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii).

[197] *See Lined Paper School Supplies from China, India, and Indonesia*, Inv. Nos. 701-TA-442 to 443, 731-TA-1095 to 1097 (Final), USITC Pub. 3884 at 46-48 (Sept. 2006); *Carbazole Violet Pigment from China and India*, Inv. Nos. 701-TA-437 & 731-TA-1060 to 1061 (Final), USITC Pub. 3744 at 26 (Dec. 2004);

B. Arguments of the Parties

Domestic Interested Parties argue that the Commission should find that critical circumstances exist with respect to imports of CAAS from China.[198] They contend that subject imports from China increased when using a three-month pre- and post-initiation period (October to December 2017 and January to March 2018).[199] They point to Commerce's critical circumstances findings as further evidence that the Commission should find the remedial effect of the order has been undermined.[200] They argue that an affirmative critical circumstances determination is warranted based upon additional factors, including the rapid increase in U.S. importer inventories immediately following the institution of these investigations, the highly vulnerable condition of the U.S. industry, and the fact that subject imports captured significant market share from the domestic industry even as demand for CAAS increased during the period of investigation.[201]

Respondents assert that the Commission should reach negative determinations regarding critical circumstances for subject imports from China.[202] They contend that Domestic Interested Parties' reliance on a three-month period provides an incomplete analysis of the pre- and post-initiation periods.[203] They further contend that using six-month periods shows a decline rather than a massive increase in the volume of subject imports in the post-petition period.[204] They further assert that U.S. importer inventories declined when comparing the six-month periods pre- and post-initiation.[205]

C. Analysis

In its final antidumping and countervailing duty determinations concerning CAAS from China, Commerce found that critical circumstances exist with respect to certain subject producers/exporters. Commerce's final determination in the antidumping duty investigation found that critical circumstances exist with respect to Nanjie Resources Co., Limited, Yong Jie New Material Co., Ltd., and Zhejiang Yongjie Aluminum Co., Ltd.; Zhejiang GKO Aluminium Stock Co., Ltd.; other companies eligible for a separate rate that were not individually examined; and

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Certain Frozen Fish Fillets from Vietnam, Inv. No. 731-TA-1012 (Final), USITC Pub. 3617 at 20-22 (Aug. 2003).

[198] Domestic Interested Parties' Prehearing Br. at 54-62.

[199] Domestic Interested Parties' Prehearing Br. at 57-60. Domestic Interested Parties assert that their critical circumstances allegation, which was filed with Commerce on March 23, 2018, placed respondents on notice that their imports could be subject to retroactive liability. *Id*. at 58.

[200] Domestic Interested Parties' Prehearing Br. at 61-62.

[201] Domestic Interested Parties' Prehearing Br. at 61-62.

[202] NMMA Prehearing Br. at 58-61; MEC Prehearing Br. at 2-7; Ta Chen Prehearing Br. at 1-10; NMMA Posthearing Br. at 14-15.

[203] NMMA Prehearing Br. at 58-59; MEC Prehearing Br. at 3-5; Ta Chen Prehearing Br. at 2-6.

[204] Ta Chen Prehearing Br. at 4.

[205] NMMA Prehearing Br. at 60-61.

the PRC-wide entity.[206] Commerce's final determination in the countervailing duty investigation found that critical circumstances exist for Chalco Ruimin Co., Ltd.; Chalco-SWA Cold Rolling Co., Ltd.; and all other exporters or producers not individually examined.[207] Thus, Commerce's affirmative critical circumstances determinations in the antidumping and countervailing duty investigations extend to different companies. The statute requires that the Commission make its critical circumstances determinations on the basis of imports subject to Commerce's affirmative critical circumstances determination; therefore, we separately examine the respective data for each investigation below.[208]

We first consider the appropriate period for comparison of pre-petition and post-petition levels of subject imports from China. While the Commission typically considers six-month periods, it has relied on a shorter comparison period when Commerce's preliminary determination fell within the six-month post-petition period.[209] That situation arises here,[210] and we have thus determined to compare the volume of subject imports observed during the five months prior to the initiation of these investigations (July 2017 to November 2017), with

[206] *Antidumping Duty Investigation of Common Alloy Aluminum Sheet from the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair-Value*, 83 Fed. Reg. 57421, 57422 (Nov. 15, 2018). In addition, Commerce determined that critical circumstances did not exist for Henan Mingtai Al Industrial Co., Ltd. (Henan Mingtai) and Zhengzhou Mingtai Industry Co., Ltd. (Zhengzhou Mingtai). *Id*.

[207] *Countervailing Duty Investigation of Common Alloy Aluminum Sheet from the People's Republic of China: Final Affirmative Determination*, 83 Fed. Reg. 57427 (Nov. 15, 2018). Commerce made negative critical circumstances determinations for exporters Yong Jie New Material Co., Ltd.; Henan Migtai, and Zhengzhou Mingtai.

[208] *See*, *e.g., Steel Wire Garment Hangers from Vietnam*, Inv. Nos. 701-TA-487 and 731-TA-1198 (Final), USITC Pub. 4371 at 4-5 (Jan. 2013) and *Crystalline Silicon Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Final), USITC Pub. 4360 at 40-41 (Nov. 2012).

[209] In particular, the Commission has used five-month periods in recent investigations where the timing of the first preliminary Commerce determination authorizing the imposition of provisional duties would have served to reduce subject import volume in the sixth month of the post-petition period. *See, e.g., Cold-Rolled Steel Flat Products from China and Japan,* Inv. Nos. 701-TA-541 and 731-TA-1284 and 1286 (Final), USITC Pub. 4619 (July 2016); *Polyethylene Terephthalate (PET) Resin from Canada, China, India, and Oman,* Inv. Nos. 701-TA-531-532 and 731-TA-1270-1273 (Final), USITC Pub. 4604 at 31-32 (Apr. 2016); *Carbon and Certain Steel Wire Rod from China*, Inv. Nos. 701-TA-512, 731-TA-1248 (Final), USITC Pub. 4509 at 25-26 (Jan. 2015) (using five-month periods because preliminary Commerce countervailing duty determination caused reduction of subject import volume in sixth month).

[210] Commerce issued its preliminary affirmative determination in the countervailing duty investigations of CAAS from China on April 23, 2018. *Common Alloy Aluminum Sheet from the People's Republic of China: Preliminary Affirmative Countervailing Duty (CVD) Determination, Alignment of Final CVD Determination With Final Antidumping Duty Determination, and Preliminary CVD Determination of Critical Circumstances*, 83 Fed. Reg. 17651 (Apr. 23, 2018).

the volume of subject imports after the initiation of these investigations (December 2017 to April 2018), for purposes of our critical circumstances analysis.[211]

Antidumping Duty Investigation. For the antidumping duty investigation, imports of CAAS from China subject to Commerce's affirmative critical circumstances finding increased from *** short tons to *** short tons between the two five-month periods (July-November 2017 and December 2017-April 2018), an increase of *** percent.[212] Although the volume of subject imports is higher in the post-initiation period, the increase is not of such a magnitude that leads us to conclude that those imports appear likely to undermine seriously the remedial effect of the antidumping duty order. Further, U.S. importers' inventories of subject merchandise were lower in June 2018, at *** short tons, than in December 2017, at *** short tons.[213] These data are inconsistent with the domestic industry's claim that U.S. importers were stockpiling CAAS from China after the initiation of these investigations in late 2017 and confirm that the post-initiation subject imports would not seriously undermine the remedial effect of the antidumping duty order.

Taken as a whole, the data on the record indicate that subject imports covered by Commerce's affirmative critical circumstances determinations would not undermine seriously the remedial effect of the antidumping duty order. Consequently, we determine that critical circumstances do not exist with respect to subject imports from China that are covered by Commerce's affirmative critical circumstances finding in the antidumping duty investigation.

Countervailing Duty Investigation. For the countervailing duty investigation, imports subject to Commerce's affirmative critical circumstances finding increased from *** short tons to *** short tons between the two five-month periods, an increase of *** percent.[214] Although the volume of subject imports is higher in the post-initiation period, the increase is not of such a magnitude that leads us to conclude that those imports appear likely to undermine seriously the remedial effect of the countervailing duty order. Further, U.S. importers' inventories of subject merchandise were lower in June 2018, at *** short tons, than in December 2017, at *** short tons.[215] These data are inconsistent with the domestic industry's claim that U.S. importers were stockpiling CAAS from China after the initiation of these investigations in late 2017 and confirm that the post-initiation subject imports would not seriously undermine the remedial effect of the countervailing duty order.

[211] The Domestic Interested Parties have provided no basis in Commission practice for the use of three-month pre- and post-initiation periods or for the proposition that the post-initiation period should conclude when critical circumstances allegations are raised.

[212] Calculated from CR/PR at Table IV-8.

[213] CR/PR at Table VII-7. The information available on inventories includes all subject imports from China.

[214] Calculated from CR/PR at Table IV-8.

[215] CR/PR at Table VII-7. The information available on inventories includes all subject imports from China.

Taken as a whole, the data on the record indicate that subject imports covered by Commerce's affirmative critical circumstances determinations would not undermine seriously the remedial effect of the countervailing duty order. Consequently, we determine that critical circumstances do not exist with respect to subject imports from China covered by Commerce's affirmative critical circumstances findings in the countervailing duty investigation.

VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of CAAS from China that are sold in the United States at less than fair value and subsidized by the government of China. We also find that critical circumstances do not exist with respect to imports of CAAS from China subject to Commerce's affirmative critical circumstances determinations.

PART I: INTRODUCTION

BACKGROUND

These investigations result from a notification of investigations self-initiated by the U.S. Department of Commerce ("Commerce") and deemed by the U.S. International Trade Commission ("USITC" or "Commission") as having been filed on December 1, 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 common alloy aluminum sheet ("CAAS")[1] from China. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
November 28, 2017	Commerce's notice of initiation (82 FR 57214, December 4, 2017)
December 1, 2017	Institution of Commission's investigations (82 FR 58025, December 8, 2017)
January 17, 2018	Commission's preliminary determinations (83 FR 3024, January 22, 2018)
April 23, 2018	Commerce's preliminary countervailing duty determination (83 FR 17651)
June 22, 2018	Commerce's preliminary antidumping duty determination (83 FR 29088); scheduling of final phase of Commission investigations (83 FR 33946, July 18, 2018)
October 30, 2018	Commission's hearing
November 15, 2018	Commerce's final determinations (83 FR 57421 and 83 FR 57427)
December 5, 2018	Commission's vote
January 30, 2019	Commission's views issued

Note.-- Due to the lapse in appropriations and ensuing cessation of Commission operations, all import injury investigations conducted under authority of Title VII of the Tariff Act of 1930 accordingly have been tolled pursuant to 19 U.S.C. §§ 1671d(b)(2), 1673d(b)(2).

[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 hearing is presented in appendix B of this report.

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

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

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

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

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

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.

Organization of report

Part I of this report presents information on the subject merchandise, 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

CAAS is used in a variety of applications, including in building and construction, electrical, infrastructure, marine, and transportation sectors, where characteristics such as strength, light-weight, formability, and corrosion resistance are desired.[6] The leading U.S. producers of CAAS include Aleris, Arconic, JW Aluminum, Jupiter Aluminum, and Novelis. Leading importers of CAAS from China include *** and from nonsubject sources include ***. Leading foreign producers of aluminum flat-rolled products include Novelis (North America, Asia, Europe, and South America), Arconic (United States and Saudi Arabia), UACJ (Japan), Hydro Aluminum (Germany and Norway), and Constellium (North America, Europe, and China). Other notable global producers of aluminum flat-rolled products include Gulf Aluminum Rolling Mill Co (GARMCO, Bahrain), AMAG Rolling GmbH (Asia, Europe, Middle East, and North

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

[6] The Aluminum Association, "Commerce Department Launches Case on Chinese Common Alloy," http://www.aluminum.org/commerce-department-launches-case-chinese-common-alloy, (accessed December 28, 2017).

America), Chinalco Group (China), and JW Aluminum (United States).[7] U.S. purchasers of CAAS represent firms in a variety of industries, including the construction and boating industries. Large U.S. purchasers of CAAS include ***.

Apparent U.S. consumption of CAAS totaled approximately 2.2 million short tons ($6.2 billion) in 2017. Currently, ten firms are known to produce CAAS in the United States. U.S. producers' U.S. shipments of CAAS totaled 1.2 million short tons ($3.5 billion) in 2017, and accounted for 54.5 percent of apparent U.S. consumption by quantity and 55.9 percent by value. U.S. imports from China totaled 391 thousand short tons ($973 million) in 2017 and accounted for 17.9 percent of apparent U.S. consumption by quantity and 15.8 percent by value. U.S. imports from nonsubject sources totaled 603 thousand short tons ($1.7 billion) in 2017 and accounted for 27.6 percent of apparent U.S. consumption by quantity and 28.3 percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in this proceeding is presented in appendix C, tables C-1 through C-7. Except as noted, U.S. industry data are based on questionnaire responses of ten firms that accounted for the vast majority of U.S. production of CAAS during 2017. U.S. imports are based on official Commerce statistics[8] and questionnaire responses received from 49 companies, representing approximately 90 percent of U.S. imports from China and approximately 90 percent of quantity of imports from nonsubject sources in 2017 under HTS statistical reporting numbers: 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080.[9]

The Commission received 35 usable questionnaire responses from firms that have purchased CAAS since 2015. Sixteen responding purchasers are distributors, 14 are end users, and 5 are manufacturers and converters. In general, responding U.S. purchasers were located in the Midwest, Southeast, Central Southwest, and Pacific Coast. The responding purchasers represented firms in the construction, trailer, and boating industries.

The Commission received usable responses to its foreign producers' or exporters' questionnaire from twelve firms in China, whose exports to the United States accounted for more than 89 percent of U.S. imports of CAAS from China in 2017. According to estimates by the responding producers in China, the production of CAAS in China reported in questionnaires accounts for approximately 23.7 percent of overall production of CAAS in China in 2017.

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[7] Aluminum Circle, "Top Five Aluminum Rolling Companies in the World," November 26, 2016, http://www.alcircle.com/news/downstream-products/detail/26426/top-five-aluminium-rolling-companies-in-the-world, (accessed December 28, 2017).

[8] Three firms (***) reported importing CAAS (from sources other than China or Canada) under other HTS statistical reporting numbers (specifically, 7606.12.3030, 7607.11.9000, and 7607.19.6000) representing less than 0.5 percent of imports in any one period during January 2015 to June 2018.

[9] The nonsubject import coverage reflects a combination of non-reporting firms (e.g. ***) and a moderate degree of overstatement in official statistics including out-of-scope merchandise (see, e.g., email from ***, January 4, 2018).

PREVIOUS AND RELATED INVESTIGATIONS

Commission proceedings

CAAS has not been the subject to any prior countervailing or antidumping duty investigations in the United States.[10] In 2004, the Commission conducted an antidumping duty investigation on aluminum plate from South Africa. The Commission determined that an industry in the United States was not materially injured or threatened with material injury, and the establishment of an industry in the United States was not materially retarded, by reason of imports from South Africa of certain aluminum plate.[11]

In 2018, the Commission conducted final phase antidumping duty and countervailing duty investigations on aluminum foil from China. The Commission determined that an industry in the United States was materially injured by reason of imports of aluminum foil from China that Commerce determined to be subsidized and sold in the United States at less than fair value.[12] On April 19, 2018, Commerce issued antidumping and countervailing duty orders on aluminum foil from China.[13]

In 2017, the Commission conducted a study of the global aluminum industry and on factors affecting the global competitiveness of the U.S. aluminum industry, which included both unwrought (primary and secondary) and wrought (semi-finished) aluminum products.[14]

Commerce proceedings

On April 26, 2017, Commerce initiated an investigation under section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862), to determine the effects on the national security of imports of aluminum. A public hearing in this investigation was held on June 23, 2017. On January 19, 2018, the Secretary of Commerce transmitted to the President, Commerce's report of its findings and remedy recommendations on U.S. aluminum imports. On March 8, 2018, the President announced his decision to impose 10 percent ad-valorem duties on U.S. imports of various aluminum products, including CAAS. Canada and Mexico were initially granted exemptions to these tariffs. On March 22, 2018, the President announced his decision to temporarily suspend the Section 232 duties through May 1, 2018 on U.S. imports of

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[10] Conference transcript, p. 10 (Herman).

[11] *Certain Aluminum Plate from South Africa, Investigation No. 731-TA-1056 (Final),* USITC Publication 3734, November 2004, p. 1.

[12] *Aluminum Foil from China, Investigation Nos. 701-TA-570 and 731-TA-1346 (Final)*, USITC Publication 4771, May 2018, p. 1 and *Aluminum Foil From China*, 83 FR 16128, April 13, 2018

[13] *Certain Aluminum Foil From the People's Republic of China: Amended Final Affirmative Countervailing Duty Determination and Countervailing Duty Order*, 83 FR 17360 and *Certain Aluminum Foil From the People's Republic of China: Amended Final Determination of Sales at Less Than Fair Value and Antidumping Duty Order*, 83 FR 17362.

[14] *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, p. 30

certain aluminum products, including CAAS, from Argentina, Australia, Brazil, Canada, Mexico, European Union member countries, and Korea. The exemptions for Brazil, Canada, Mexico, and European Union member states, and Korea expired on May 31, 2018, while the United States negotiated an annual absolute quota with Argentina. Currently, only imports of subject aluminum products from Australia are not subject to a tariff or quota.[15]

On March 18, 2018, Commerce announced procedures for individuals and companies seeking exclusions from the 10 percent Section 232 national-security tariffs on aluminum products. According to these procedures, only individuals or organizations that use aluminum articles identified in the President's proclamation and engaged in business activities in the United States are permitted to submit exclusion requests. In order for an exclusion to be approved, Commerce indicated that it would consider whether the product subject to the exclusion request "is produced in the United States of a satisfactory quality or in a sufficient and reasonably available amount."[16] Organizations and individuals are also permitted to file objections to these requests, however they should provide factual information on production capabilities at their aluminum manufacturing facilities in the United States, the availability and delivery time of products manufactured at those facilities relative to the product in the exclusion request, as well as the suitability of its product for the application(s) identified in the exclusion request.[17]

A review of those exclusion requests submitted found that nearly all individuals and companies that have submitted exclusion requests indicated "insufficient U.S. availability" or "no U.S. production" as a reason for the request. Of the 981 requests that have been reviewed by Commerce's Bureau of Industry and Security (BIS) as of November 7, 2018, 839 have been approved and 142 have been denied.[18] There have been 69 requests for automotive sheet (of which 6 have been approved by BIS), 35 requests for can stock (of which 20 have been approved), and 393 requests for other aluminum sheet products, including CAAS (of which 377 have been approved).[19]

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[15] For further information on recent developments regarding the Section 232 national-security tariffs, please see Part III. https://www.commerce.gov/page/section-232-investigation-effect-imports-aluminum-us-national-security, accessed September 28, 2018.

[16] U.S. Department of Commerce, "U.S. Department of Commerce Announces Steel and Aluminum Tariff Exclusion Process," March 18, 2018, https://www.commerce.gov/news/press-releases/2018/03/us-department-commerce-announces-steel-and-aluminum-tariff-exclusion; 83 FR 12106, March 19, 2018.

[17] Ibid.

[18] The majority are approved primarily on whether there is insufficient U.S. availability of the product or no U.S. production of the product subject to the exclusion request.

[19] A list of current exclusion requests is provided by the Aluminum Association to its member companies through its "members only" portal, and is available at the following link: https://www.aluminum.org/sites/default/files/11.6.18%20New%20Exclusion%20Requests.%20New%20Format.xlsx.

USTR proceedings

On August 18, 2017, the Office of the U.S. Trade Representative ("USTR") initiated an investigation under Section 301 of the Trade Act of 1974 into practices related to technology transfer, intellectual property, and innovation by the government of China. USTR proposed three separate lists of Chinese products that will be subject to additional import duties, including various aluminum products, however, none of the products subject to the Section 301 tariffs include products subject to these investigations on CAAS from China.[20]

NATURE AND EXTENT OF SUBSIDIES AND SALES AT LTFV

Subsidies

On April 23, 2018, Commerce published a notice in the *Federal Register* of its preliminary determination of countervailable subsidies for producers and exporters of CAAS from China.[21] On November 15, 2018, Commerce published a notice of its final determination of countervailable subsidies for producers and exporters of CAAS from China.[22]

Commerce determined the following programs to be countervailable:

- Policy Loans to the Common Alloy Sheet Industry;
- Export Loans from Chinese State-Owned Banks;
- Export Buyer's Credit;
- Income Tax Deductions for Research and Development Expenses Under the Enterprise Income Tax Law;
- Income Tax Credits for Purchase of Special Equipment;
- VAT Rebates on Domestically-Produced Equipment;
- Government Provision of Land for LTAR;
- Government Provision of Primary Aluminum for LTAR;
- Government Provision of Steam Coal for LTAR;
- Government Provision of Electricity for LTAR;
- "Other Subsidies."

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[20] U.S. Customs and Border Protection, "Section 301 Trade Remedies to be Assessed on Certain Products from China," https://www.cbp.gov/trade/programs-administration/entry-summary/section-301-trade-remedies.

[21] *Common Alloy Aluminum Sheet From the People's Republic of China: Preliminary Affirmative Countervailing Duty (CVD) Determination, Alignment of Final CVD Determination With Final Antidumping Duty Determination, and Preliminary CVD Determination of Critical Circumstances*, 83 FR 17651, April 23, 2018.

[22] *Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*, 83 FR 57427, November 15, 2018 and *Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Common Alloy Aluminum Sheet from the People's Republic of China*, Department of Commerce, November 5, 2018.

Table I-1 presents Commerce's findings of subsidization of CAAS in China.[23]

Table I-1
CAAS: Commerce's subsidy determinations with respect to imports from China

Entity	Preliminary countervailable subsidy margin (percent)	Final countervailable subsidy margin (percent)
Chalco Ruimin Co., Ltd.	113.30	116.49
Chalco-SWA Cold Rolling Co., Ltd.	113.30	116.49
Henan Mingtai Industrial Co., Ltd./Zhengzhou Mingtai Industry Co., Ltd.[1]	34.99	46.48
Yong Jie New Material Co., Ltd.[2]	31.20	55.02
All others	33.10	50.75

[1] Commerce found Henan Gongdian Thermal Co., Ltd. to be cross-owned with Henan Mingtai Industrial Co., Ltd. and Zhengzhou Mingtai Industry Co., Ltd.
[2] Commerce has found the following companies to be cross-owned with Yong Jie New Material: Zhejiang Yongjie Aluminum Co., Ltd.; Zhejiang Nanjie Industry Co., Ltd; Zhejiang Yongjie Holding Co., Ltd; and Nanjie Resources Co., Ltd.

Source: 83 FR 17651, April 23, 2018 and 83 FR 57427, November 15, 2018.

Sales at LTFV

On June 22, 2018, Commerce published a notice in the *Federal Register* of its preliminary determination of sales at LTFV with respect to imports from China.[24] On November 15, 2018, Commerce published a notice of its final determination of sales at LTFV with respect to imports from China.[25] Table I-2 presents Commerce's dumping margins with respect to imports of CAAS from China.[26]

[23] Commerce applied total adverse facts available ("AFA") to Chalco Ruimin and Chalco-SWA. Commerce memorandum *Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*, November 15, 2018.

[24] *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Preliminary Determination of Sales at Less-Than-Fair Value, Preliminary Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*, 83 FR 29088, June 22, 2018.

[25] *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value*, 83 FR 57421, November 15, 2018.

[26] Commerce applied total adverse facts available ("AFA") to the Yongjie Companies, GKO Aluminum, and all other firms not specifically listed. *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value*, November 15, 2018.

Table I-2
CAAS: Commerce's weighted-average LTFV margins with respect to imports from China

Producer	Exporter	Preliminary dumping margin (*percent*)	Final dumping margin (*percent*)
Henan Mingtai Al Industrial Co., Ltd./Zhengzhou Mingtai Industry Co., Ltd.	Henan Mingtai Al Industrial Co., Ltd./Zhengzhou Mingtai Industry Co., Ltd.	167.16	49.85
Jiangsu Alcha Aluminium Co., Ltd.	Alcha International Holdings Ltd.	167.16	49.85
Chalco Ruimin Co., Ltd.	Alumax Composite Material (Jiangyin) Co., Ltd	167.16	49.85
Granges Aluminum (Shanghai) Co., Ltd.	Granges Aluminum (Shanghai) Co., Ltd.	167.16	49.85
Henan Xintai Aluminum Industry Co., Ltd.	Henan Founder Beyond Industry Co., Ltd.	167.16	49.85
Huafon Nikkei Aluminium Corporation	Huafon Nikkei Aluminium Corporation	167.16	49.85
Henan Jinyang Luyue Co., Ltd.	Jiangsu Lidao New Material Co., Ltd	167.16	49.85
Jiangsu Zhong He Aluminum Co., Ltd.	Jiangsu Lidao New Material Co., Ltd	167.16	49.85
Jiangyin Litai Ornamental Materials Co., Ltd.	Jiangyin Litai Ornamental Materials Co., Ltd.	167.16	59.72
Chalco Ruimin Co., Ltd.	Jiangyin New Alumax Composite Material Co. Ltd	167.16	49.85
Shandong Fuhai Industrial Co., Ltd.	Shandong Fuhai Industrial Co., Ltd.	167.16	49.85
Tianjin Zhongwang Aluminium Co., Ltd.	Tianjin Zhongwang Aluminium Co., Ltd.	167.16	49.85
Xiamen Xiashun Aluminum Foil Co., Ltd.	Xiamen Xiashun Aluminum Foil Co., Ltd	167.16	49.85
Shandong Nanshan Aluminium Co., Ltd.	Yantai Jintai International Trade Co., Ltd.	167.16	49.85
Yinbang Clad Material Co., Ltd.	Yinbang Clad Material Co., Ltd.	167.16	49.85
Henan Zhongyuan Aluminum Co., Ltd.	Zhengzhou Silverstone Ltd.	167.16	49.85
Luoyang Xinlong Aluminum Co., Ltd.	Zhengzhou Silverstone Ltd.	167.16	49.85
Shanghai Dongshuo Metal Trade Co., Ltd.	Zhengzhou Silverstone Ltd.	167.16	49.85
Zhengzhou Mingtai Industry Co., Ltd.	Zhengzhou Silverstone Ltd.	167.16	49.85
All others		167.16	59.72

Source: 83 FR 29088, June 22, 2018 and 83 FR 57421, November 15, 2018.

THE SUBJECT MERCHANDISE

Commerce's scope

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

> *Aluminum common alloy sheet (common alloy sheet), which is a flat-rolled aluminum product having a thickness of 6.3 mm or less, but greater than 0.2 mm, in coils or cut-to-length, regardless of width. Common alloy sheet within the scope of this investigation includes both not clad aluminum sheet, as well as multi-alloy, clad aluminum sheet. With respect to not clad aluminum sheet, common alloy sheet is manufactured from a 1XXX-, 3XXX-, or 5XXX-series alloy as designated by the Aluminum Association. With respect to multi-alloy, clad aluminum sheet, common alloy sheet is produced from a 3XXX-series core, to which cladding layers are applied to either one or both sides of the core.*
>
> *Common alloy sheet may be made to ASTM specification B209–14, but can also be made to other specifications. Regardless of specification, however, all common alloy sheet meeting the scope description is included in the scope. Subject merchandise includes common alloy sheet that has been further processed in a third country, including but not limited to annealing, tempering, painting, varnishing, trimming, cutting, punching, and/or slitting, 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 common alloy sheet.*
>
> *Excluded from the scope of this investigation is aluminum can stock, which is suitable for use in the manufacture of aluminum beverage cans, lids of such cans, or tabs used to open such cans. Aluminum can stock is produced to gauges that range from 0.200 mm to 0.292 mm, and has an H– 19, H–41, H–48, or H–391 temper. In addition, aluminum can stock has a lubricant applied to the flat surfaces of the can stock to facilitate its movement through machines used in the manufacture of beverage cans. Aluminum can stock is properly classified under Harmonized Tariff Schedule of the United States (HTSUS) subheadings 7606.12.3045 and 7606.12.3055.*

Where the nominal and actual measurements vary, a product is within the scope if application of either the nominal or actual measurement would place it within the scope based on the definitions set for the above.[27]

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to this proceeding is imported under the following statistical reporting numbers of the 2018 Harmonized Tariff Schedule of the United States ("HTS"): 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080.[28] [29] CAAS imported under the applicable subheadings is accorded a column-1 general duty rate of 3.0 percent, 2.7 percent, 3.0 percent, 6.5 percent, 3.0 percent, 2.7 percent, 3.0 percent, and 6.5 percent, *ad valorem*, respectively.[30] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

THE PRODUCT

Overview

Aluminum sheet is a flat-rolled aluminum product having a thickness greater than 0.2 mm but less than or equal to 6.3 mm. Other flat-rolled aluminum products that are not included within the scope of these investigations include aluminum foil (which has a thickness no greater than 0.2 mm) and aluminum plate (which has a thickness greater than 6.3 mm). Aluminum sheet subject to these investigations are of 1XXX, 3XXX, and 5XXX series alloys that are non-heat treatable. The series refers to the main alloying present in the product; different

[27] *Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*, 83 FR 57427, November 15, 2018.

[28] Subheadings 7606.11 and 12 cover products that are rectangular (including square), while 7606.91 and 7606.92 cover other such aluminum. The term "common alloy" does not appear in the HTS; rather, note 1(a) defines the scope of "aluminum, not alloyed" (7606.11 and 7606.91) and 1(b) the scope of "aluminum alloys" (7606.12 and 7606.92) based on chemical composition. The subheadings noted above include products without regard to thickness, but only those provided for merchandise with a thickness of 6.3 mm or less are covered by these proceedings, which are broken out at the 10-digit statistical reporting number.

[29] Aluminum can stock (excluded from scope) is currently imported under HTS statistical reporting numbers 7606.12.3045 and 7606.12.3055.

[30] Imports of CAAS from China and most other countries (except Argentina and Australia) are currently subject to an additional duty of 10 percent ad valorem under HTS subheading 9903.85.01 pursuant to action under section 232 of the Trade Expansion Act of 1962. Products of China covered by these proceedings are not currently subject to additional tariffs under headings 9903.88.01 through 9903.88.04, relating to section 301 of the Trade Act of 1974.

metals are used to elicit various properties such as improved electrical conductivity, heat resistance, formability, among others (see Table I-1). Heat-treatable alloys are alloys that can be strengthened through a thermal (heating) process, usually in an annealing furnace. Non-heat treatable alloys are alloys which are primarily strengthened through further working (e.g. rolling, extruding, drawing) and not by thermal treatment.[31]

Description and applications

Aluminum sheet is a thin wrought[32] aluminum product that is produced via a rolling process. The subject product is common alloy aluminum sheet having a thickness of 6.3 mm or less, but greater than 0.2 mm, in coils or cut-to-length, regardless of width. Aluminum sheet within Commerce's scope includes both not clad and multi-alloy clad aluminum sheet. Not-clad aluminum alloy sheet is derived from molten aluminum that is mixed with other nonferrous metals, and then cast into a semifinished form for further processing. Multi-alloy clad aluminum sheet is produced through a roll bonding process, during which aluminum sheet and other nonferrous metal (alloying metals) sheets are passed concurrently through steel rollers that bind the metals together through the application of pressure (see figure I-4). Multi-alloy clad aluminum sheet is produced from a 3XXX series alloy core, to which layers are applied to one or both sides of the core. One industry representative noted that during the manufacturing of brazing sheet for heat exchangers, the materials cladded to a 3XXX series core will melt at a lower temperature than the core. This process increases the strength of the final product and holds it together.[33]

Table I-3 presents information on subject alloy series, type of alloying metals, properties of those alloys, and the end uses of those alloys. The pricing products (see Part V) are composed of Alloy 3003 and Alloy 5052, whose properties and end uses are included in the descriptions below. Common applications for Alloy 3003 include heat exchangers, air condition evaporators, motor vehicle radiators, and home appliances.[34] Common applications for Alloy 5052 include architecture, general sheet metal work, and heat exchangers.[35] 6XXX series alloys (not included in Commerce's scope) are used primarily in automotive applications (e.g. automotive body sheet), as well as other applications such as railcars and marine vessel frames.

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[31] The Aluminum Association, "Global Advisory Group GAG Guidance: Terms and Definitions," https://www.aluminum.org/sites/default/files/GAG_Terms_and_Definitions_-Edition_2009-01_-March_2009.pdf, p. 4.

[32] Wrought aluminum consists of aluminum products that are rolled, drawn, extruded, or otherwise mechanically formed of aluminum or aluminum alloys.

[33] Conference transcript, p. 104 (Stemple).

[34] Comet Metals, "Aluminum Alloy 3003," https://www.cometmetals.com/metal-detail?met_id=11454&product_txt=aluminum&pg_id=5141, (accessed December 13, 2017).

[35] United Aluminum, "Alloy 5052," https://www.unitedaluminum.com/united-aluminum-alloy-5052/, (accessed December 13, 2017).

Table I-3
Aluminum alloys: Alloy series, alloying metal, properties, and end uses

Series	Alloying metal	Properties	End uses
1XXX	Pure aluminum (Al)	Commercially pure (99 percent or more Al by weight), non-heat-treatable, low strength, excellent formability, high thermal and electrical conductivity, high corrosion resistance, highly reflective	Aircraft frames, fuel filters, electric power grid lines, radiator tubing, lighting reflectors, decorative components, food packaging trays
3XXX	Manganese (Mn)	Non-heat-treatable, medium strength, good formability, good corrosion resistance	Storage tanks, beverage cans, home appliances, heat exchangers, pressure vessels, siding, gutters
5XXX	Magnesium (Mg)	Non-heat-treatable, medium to high strength, good formability, excellent marine corrosion resistance	Interior automotive, appliance trim, pressure vessels, armor plate, marine and cryogenic components
6XXX	Magnesium (Mg) and silicon (Si)	Heat-treatable Medium-high strength, good corrosion resistance, easily extruded	Exterior automotive, automotive profiles, railcars, tubing, marine vessel frames, screw stock, doors and windows

Note.— 1XXX, 3XXX, and 5XXX series alloys are included in Commerce's scope. However, the properties and end uses described above may include product that is out of scope (e.g., due to thickness) or excluded from the scope (e.g. can stock). 6XXX series alloys are not included within Commerce's scope.

Source: Aluminum Association, "Aluminum Alloys 101," 2017; ASM International, "Subject Guide: Aluminum and Aluminum Alloys," 2017; Havrilla, "Joining Aluminum with Laser," July 12, 2013; *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, pp. 530-531.

CAAS can be produced to the requirements of various international standard specifications, including but not limited to the American Society for Testing and Materials (ASTM) International Standard B209-14 for aluminum and aluminum alloy sheet and plate.[36]

The scope of these investigations excludes "aluminum can stock, which is suitable for use in the manufacture of aluminum beverage cans, lids of such cans, or tabs used to open such cans." Can stock is produced to gauges ranging from 0.200 mm to 0.292 mm with any of the following tempers: H-19, H-41, H-48, or H-39.[37] Aluminum can stock also has a lubricant applied

[36] ASTM International, "ASTM B209-14," https://www.astm.org/Standards/B209.htm, (accessed December 11, 2017).

[37] In metallurgy, tempering is a heat treating process that is used to strengthen or harden metal. The Aluminum Association identifies various aluminum products by specifying both an alloy and a temper for that product. H tempers indicate the degree of strain-hardening for that product. Source: Weritz, John. The Aluminum Association. "The Aluminum Association Alloy and Temper System." Presentation to the Aluminum Extruders Council (AEC). http://www.aluminum.org/sites/default/files/AEC%20presentation%20160224.pdf. Slides 10, 20-21.

to its surfaces in order to facilitate movement through equipment used to manufacture beverage cans.[38]

Manufacturing processes[39]

The manufacturing processes for CAAS are summarized below. In general, there are three distinct stages that include: (1) melting and refining aluminum, (2) casting[40] aluminum into semi-finished forms such as sheet ingot,[41] and (3) rolling semi-finished forms into flat-rolled products such as aluminum sheet.

Melting and refining

Aluminum is produced using either the primary or the secondary smelting process. Inputs for the primary smelting process are derived from aluminum-containing ore (bauxite) that is first mined then refined into aluminum-oxide (alumina) during the Bayer process. During the Hall-Héroult electrolytic smelting process, the aluminum-oxide is then smelted to remove oxygen and produce molten aluminum metal. The molten aluminum is then alloyed with different metals to enhance certain properties and qualities. Aluminum can also be alloyed with other nonferrous metals later in the manufacturing process through the cladding process.

During the secondary smelting process, old and new aluminum scrap[42] is smelted and alloyed, producing molten aluminum. Most domestic and foreign producers use a combination of primary and secondary sources (including old sheet) to produce molten aluminum.[43] The desired characteristics of aluminum are determined prior to the casting stage. ***.[44]

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[38] Conference transcript, p. 23 (Stemple) and *Common Alloy Aluminum Sheet from the People's Republic of China: Initiation of Less-Than-Fair-Value and Countervailing Duty Investigations*, 82 FR 57214, December 4, 2017.

[39] Certain producers are involved in all stages of the manufacturing process, while others purchase semifinished forms and engage principally in the rolling stage.

[40] The two casting methods used in the production of aluminum sheet include continuous and direct chill casting.

[41] Sheet ingot is a large unwrought slab of aluminum that can weigh more than 20 metric tons and is approximately 6 feet wide, 20 feet long, and more than 2 feet thick. Sheet ingot is reduced in thickness to produce flat-rolled products such as sheet, plate, and foil. *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, p. 27.

[42] Old scrap is post-consumer material derived from various end uses such as manufactured products and construction materials. New scrap is generated during the manufacturing of various aluminum products, and often takes the form of shavings and trimmings.

[43] Conference transcript, pp. 82-83 (Stemple and Zanelli), and p. 144 (Wang)

[44] ***.

Casting

Following the production of molten aluminum with the desired properties, the molten aluminum is cast into a semi-finished form that can enter a rolling process. The most common casting methods used during the production of aluminum sheet include continuous casting and direct chill casting.[45] Direct chill casting requires more energy[46] and higher production costs, but produces a higher-quality product when compared to continuous casting.[47]

Continuous casting

During the continuous casting process, molten aluminum is transferred to a holding hearth where it is stored at the correct level of purity and temperature until it is ready to be fed into a casting unit. As the molten aluminum is fed into the casting unit, it flows between water-cooled rollers[48] and emerges as a continuous solid strip of aluminum (figure I-1). The strip of aluminum is fed into a combination stand where it is cut into designated lengths by shears before it is wound into a coil (figure I-2).[49] Strips produced during this process can be between 3 and 20 mm (0.11811 and 0.787402 inches) in thickness.[50] The coil is then transferred to a cold rolling mill where, depending on the desired level of thickness, it is then further reduced to produce different gauges of aluminum sheet.[51]

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[45] Conference transcript, p. 20 (Stemple).

[46] Catrin Kammer, European Aluminum Association, "TALAT Lecture 3210, Continuous Casting of Aluminum", 1999, p. 3.

[47] Conference transcript, pp. 75-76 (Landa).

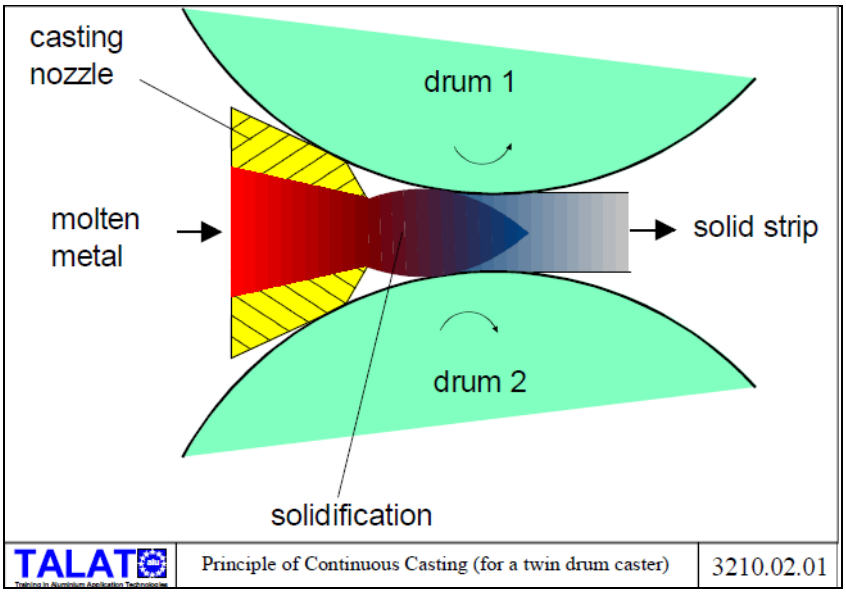
[48] The water-cooled rollers are labeled drum 1 and drum 2 in figure I-2.

[49] How Products are Made, "Aluminum Foil: Smelting," http://www.madehow.com/Volume-1/Aluminum-Foil.html, (accessed March 10, 2017).

[50] Catrin Kammer, European Aluminum Association, "TALAT Lecture 3210, Continuous Casting of Aluminum", 1999, p. 3.

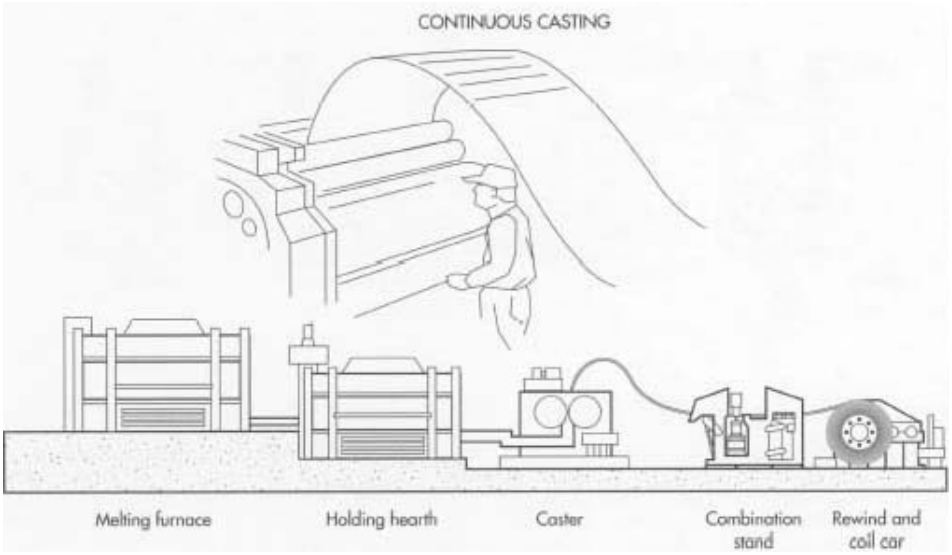
[51] Novelis, "Metal Production: CC Casting," http://novelis.com/about-us/metal-production/#1444742157266-1bded669-dec8, (accessed March 17, 2017).

Figure I-1
Aluminum sheet: Casting molten aluminum into solid strip (continuous casting process)



Source: Catrin Kammer, European Aluminum Association, "TALAT Lecture 3210, Continuous Casting of Aluminum", 1999, 4.

Figure I-2
Aluminum sheet: Continuous casting process

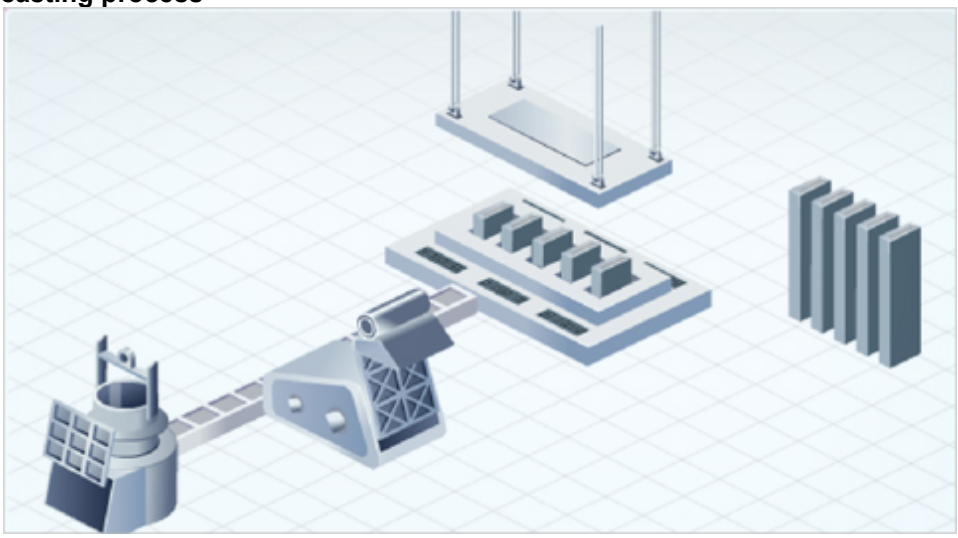


Source: http://www.madehow.com/Volume-1/Aluminum-Foil.html, (accessed March 8, 2017).

Direct chill casting

Another method of casting used in the production of CAAS is direct chill casting. During this process, molten aluminum is transferred to a holding hearth where it is stored at the correct level of purity and temperature until it is ready to be fed into a casting unit with a mold. As the molten aluminum flows into in the casting unit, cold water is pumped around the base of the mold. This cools the molten aluminum, solidifying it into the shape of the mold, producing a semi-finished product known as slab or sheet ingot (figure I-3). These semi-finished products are then removed from the casting unit and undergo a process known as scalping[52] before they are cooled to room temperature and transferred to a hot rolling mill for further processing.[53]

Figure I-3
Direct chill casting process



Source: Novelis, http://novelis.com/about-us/metal-production/#1444741293585-194762c7-e276, (accessed March 17, 2017).

Rolling

Semi-finished forms of aluminum derived from the continuous casting and direct chill casting processes are reduced in thickness in a rolling mill. Hot rolling and cold rolling are two different methods by which semi-finished forms of aluminum are reduced in thickness between rollers. The major difference between these methods is how the input (in coils, slabs, sheet ingot) is treated before it is reduced.

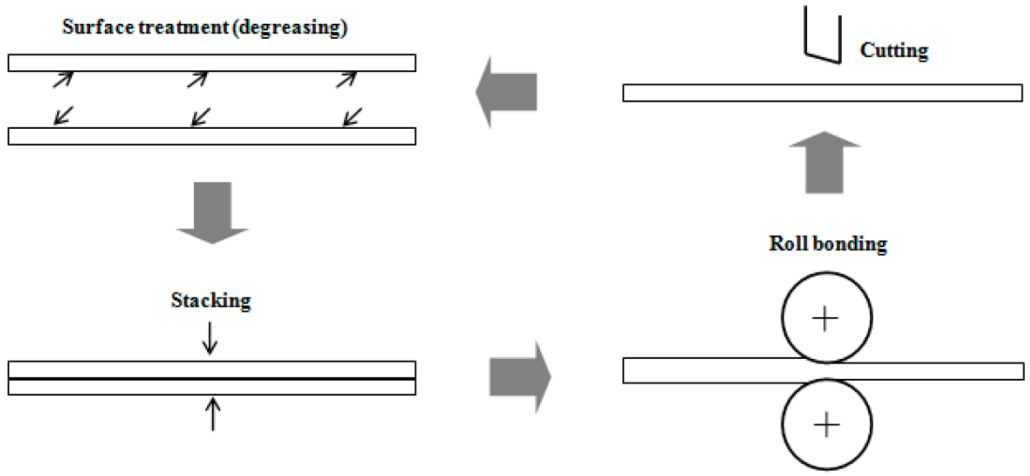
Certain product described in Commerce's scope can be alloyed through a cladding process. During this process, clad multi-alloy aluminum sheet is produced through a roll-

[52] Scalping removes irregularities or undesirable chemical compositions from the surface of the ingot.

[53] Novelis, "Metal Production: DC Casting," http://novelis.com/about-us/metal-production/#1444741293585-194762c7-e276, accessed March 17, 2017.

bonding process, during which sheets of aluminum alloys are bound together through the rolling process. Some manufacturers apply surface treatment to the aluminum and the alloying metal(s) before stacking the sheets together. Once stacked, the sheets are then passed through a series of steel rollers that apply pressure to bond the metals together. The product is then cut and further processed for various end-use applications (see figure I-4).[54] ***.[55]

Figure I-4
Clad aluminum sheet: Roll-bonding process



Source: MDPI, "Microstructure Evolution and Mechanical Properties of Al-TiB2/TiC In Situ Aluminum-Based Composites during Accumulative Roll Bonding (ARB) Process," http://www.mdpi.com:8080/1996-1944/10/2/109, (accessed December 15, 2017).

Heat-treating

Depending on the intended end use application and alloying metal present, certain flat-rolled aluminum products can undergo a heat-treating process known as annealing, however heat-treated aluminum sheet (e.g. 6XXX alloy series) is not covered by Commerce's scope. During this process, the aluminum is heated to temperatures in excess of 600 degrees Fahrenheit in an annealing furnace in order to strengthen the metal. Certain aluminum alloys undergo a two-stage heat-treating process known as "solution heat-treatment and aging." During this process, metal is heated to an extremely high temperature then rapidly cooled to room temperature. The metal then develops its full properties through a low-temperature aging process.[56] ***.[57]

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[54] Certain aluminum flat-rolled products such as coils can be further worked through re-rolling the metal. During this process, the metal is passed through steel rollers again in order to reduce it to the desired level of thickness.

[55] ***.

[56] United Aluminum, "Frequently Asked Questions," https://www.unitedaluminum.com/technical-resources-and-tools/faq/, (accessed November 8, 2018).

DOMESTIC LIKE PRODUCT ISSUES

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

For the purposes of the preliminary phase of these investigations, the Commission defined a single domestic like product coextensive with the scope that includes brazing stock.[58] The Commission, noting the limited information on the record, stated that brazing stock and other types of CAAS within the scope have different uses, are not interchangeable, and are priced differently (based upon AUV data). However, the Commission noted that it was less clear whether these distinctions reflect possible physical differences in the alloys used for brazing stock and other types of CAAS within the scope, and whether there are similar differences among other CAAS products. Moreover, while the evidence suggested some degree of overlap in the manufacturing facilities and production processes and in channels of distribution, the evidence regarding producer and customer perceptions of whether brazing stock was a distinct product appeared to be mixed. The Commission found that the record in the preliminary phase did not demonstrate a clear dividing line separating brazing stock from other CAAS within the scope.[59]

The Commission stated that as with brazing stock, the record in the preliminary phase on can stock was limited and mixed. The Commission noted that out-of-scope can stock and in-scope CAAS appeared to have different uses and generally were not interchangeable. However, it pointed out that there appeared to be at least some degree of overlap in terms of their physical characteristics; manufacturing facilities, processes, and employees; channels of distribution; and price (based on AUV data). In addition, the Commission found that the limited record on producer and customer perceptions was mixed and inconclusive. For these reasons, the Commission defined a single domestic like product consisting of all CAAS coextensive with the scope for purposes of the preliminary phase investigations.[60]

During the preliminary phase and final phase of this proceeding, the domestic interested parties proposed that the domestic like product is common alloy aluminum sheet coextensive with the scope, distinct from aluminum can stock ("can stock"), and that it should not be

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(…*continued*)

[57] ***.

[58] *Common Alloy Aluminum Sheet from China, Investigation Nos. 701-TA-591 and 731-TA-1399 (Preliminary)*, USITC Publication 4757, January 2018, p. 9.

[59] *Common Alloy Aluminum Sheet from China, Investigation Nos. 701-TA-591 and 731-TA-1399 (Preliminary)*, USITC Publication 4757, January 2018, p. 9.

[60] *Common Alloy Aluminum Sheet from China, Investigation Nos. 701-TA-591 and 731-TA-1399 (Preliminary)*, USITC Publication 4757, January 2018, p. 11.

subdivided.[61] Respondents argued that aluminum can stock should be included in the domestic like product[62] and that aluminum brazing tube stock ("brazing stock") is a separate domestic like product from CAAS.[63] In the final phase of this proceeding, respondents continued to argue that can stock should be included in the domestic like product.[64] In the final phase of these investigations, no party argued that brazing stock should be a separate domestic like product.

Brazing stock[65]

The Commission asked U.S. producers and purchasers to comment on the comparability of CAAS and brazing stock, based on the Commission's six like product factors. A tabulation of their responses is presented in table I-4.[66] As shown in table I-4, the majority of responding market participants reported "somewhat" or "never" for all six like product factors. For additional information on responses from U.S. producers and U.S. purchasers, see Appendix D and see Appendix E for additional information on U.S. imports of brazing stock and on the industry for brazing stock in China.

[61] The domestic interested parties' postconference brief, p. 2 and pp. 5-13; hearing transcript, p. 50 (Hermann); domestic interested parties' prehearing brief, p. 3; and domestic interested parties' posthearing brief, p. 3.

[62] Respondent NMMA, RVIA and CE Smith, postconference brief, p. 4.

[63] Respondent Valeo postconference brief, p. 1.

[64] Respondent CNIA prehearing brief, p. 10; respondent NMMA prehearing brief, p. 2; respondent CNIA posthearing brief, exhibit 1, p. 4; and respondent NMMA posthearing brief, p. 14.

[65] Aluminum brazing tube stock ("brazing stock") is a composite material consisting of multiple sheets of aluminum alloy metallurgically bonded to one another, with the center or "core" alloy generally being much thicker than the outer "clad" (or "filler") layers. It consists of a high-end, often proprietary, core alloy and one or more layers of braze clad. The material is typically 0.05mm to 1.0mm in thickness, of which the cladding generally represents 10% ± 2%. Brazing stock is used in such applications as automotive heat exchangers (HEX) and heating, ventilation, and air conditioning (HVAC) equipment.

[66] Firms completing more than one of the questionnaire types were asked to respond to the alternative product comparisons questions in only one questionnaire type, and in general, in the questionnaire type that is most relevant to the firm's role in the market. Staff has removed duplicate answers wherever applicable.

Table I-4
CAAS: U.S. producers' and U.S. purchasers' responses to the like product comparisons

Item	Fully	Mostly	Somewhat	Never
	U.S. producers			
Physical characteristics	---	2	3	---
Interchangeability	---	---	3	2
Manufacturing	1	2	2	---
Channels	---	2	3	---
Perceptions	---	---	5	---
Price	---	---	4	---
	U.S. purchasers			
Physical characteristics	1	---	1	1
Interchangeability	1	---	---	3
Manufacturing	1	---	2	---
Channels	1	1	1	---
Perceptions	---	2	1	1
Price	---	1	2	1

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

Physical characteristics and uses

The domestic interested parties contend that CAAS used in automotive heat exchanger applications, i.e. brazing stock, has the same basic physical characteristics as other clad CAAS, including gauge range and corrosion resistance.[67]

Respondents state that brazing stock must have certain chemical composition and physical characteristics, including high corrosion resistance, high tensile and yield strength, and limited elongation, which differ from other in-scope aluminum.[68] Respondents note that brazing stock is used to manufacture elements of automotive HEX/HVAC assemblies that contain liquids and gases and that are subject to constant stark changes in both pressure and temperature. In contrast, CAAS is used in basic transportation, building and construction, infrastructure, electrical and marine applications.[69]

As noted in table I-4, the responding U.S. producers reported that brazing stock and other CAAS are "mostly" or "somewhat" similar with respect to physical characteristics and uses, while U.S. purchasers reported that these were "fully," "somewhat," or "never" similar.

[67] Domestic interested parties' postconference brief, pp. 10-11 and prehearing brief, pp. 4-5. The domestic interested parties noted that ***. Email from ***, January 5, 2018.

[68] Respondent Valeo postconference brief, pp. 6-8.

[69] Respondent Valeo postconference brief, p. 9.

Interchangeability

The domestic interested parties argue that it is not uncommon for a single like product in a continuum of merchandise to be used in manufacturing a variety of downstream articles.[70]

Respondents note that brazing stock, particularly those used in heat exchangers ("HEX") and heating, ventilation and air conditioning ("HVAC") applications, cannot be interchanged with CAAS, given its strict specifications and testing requirements.[71]

As noted in table I-4, the responding U.S. producers reported that brazing stock and other CAAS are "somewhat" or "never" interchangeable, while U.S. purchasers generally reported that these were "never" interchangeable.

Channels of distribution

The domestic interested parties contend that brazing stock is sold to OEMS, as is other CAAS which is also sold distributors.[72]

Respondents argue that brazing stock is sold to a limited number of producers, while CAAS is sold as generally interchangeable products by a large number of various distributors.[73]

The responding U.S. producers reported that brazing stock and other CAAS "mostly" or "somewhat"" share channels of distribution, while all but one responding U.S. purchasers reported that these "fully" or "somewhat" share channels of distribution. As presented in table I-6, domestic producers ship the large majority of brazing stock to end users, while shipments of all other CAAS is almost evenly divided among distributors, converters, and end users.

[70] Domestic interested parties' postconference brief, p. 6 and prehearing brief, pp. 5-6.
[71] Respondent Valeo postconference brief, pp. 11-12.
[72] Domestic interested parties' postconference brief, pp. 11-12 and prehearing brief, p. 5.
[73] Respondent Valeo postconference brief, p. 10.

Table I-6
CAAS: U.S. producers' channels of distribution, by product type, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

Manufacturing facilities and production employees

The domestic interested parties state that CAAS used as brazing sheet is manufactured by U.S. producers Arconic and Novelis on the same equipment, and using the same production processes and employees, as other types of CAAS produced by these firms.[74]

Respondents contend that the manufacturing process of brazing stock is complex and costly, with multiple steps and subject to strict controls, while CAAS is produced in large runs through a simpler manufacturing process.[75] [76]

As shown in table I-4, the majority of U.S. producers reported that brazing stock and other CAAS are "mostly" or "somewhat" similar with respect to manufacturing facilities, production processes, and production employees. Two U.S. purchasers reported that these were "somewhat" similar.

Of the ten firms that reported production of CAAS, two firms (Arconic and Novelis) reported production of brazing stock. Table I-5 presents U.S. producers' 2017 shares of reported production of brazing stock and other CAAS.[77]

Table I-5
CAAS: U.S. producers' share of production, by product, 2017

* * * * * * *

Brazing stock accounted for *** percent of overall CAAS production during January 2015-June 2018. A summary of trade and financial data for brazing stock as collected in these investigations is presented in appendix C.

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[74] Domestic interested parties' postconference brief, p. 11 and prehearing brief, p. 5.

[75] Respondent Valeo postconference brief, pp. 10-11.

[76] Respondent Valeo stated that it believes that only Arconic produces brazing tube stock in the United States. Respondent Valeo postconference brief, p.3.

[77] One firm, ***, produced brazing stock that was not CAAS, on the same equipment as CAAS. This accounted for less than *** percent of that firm's total brazing stock production and less than *** percent of the firm's CAAS production during 2015-17. The average unit value of the firm's U.S. shipments of non-CAAS brazing stock was higher than that of the firm's CAAS brazing stock during 2015-17.

Customer and producer perceptions

The domestic interested parties contend that CAAS used in automotive heat exchanger applications is simply one of many applications in which CAAS is consumed.[78]

Respondents note that customers perceive brazing stock, particularly those used in heat exchangers ("HEX") and heating, ventilation and air conditioning ("HVAC") applications, as being different and not interchangeable with CAAS, given its strict specifications and testing requirements.[79]

As shown in table I-4, the responding U.S. producers reported that brazing stock and other CAAS are "somewhat" similar with respect to perceptions of producers and customers, while U.S. purchasers reported that these were "mostly," "somewhat," or "never."

Price

The domestic interested parties state that prices of brazing sheet is a part of the continuum of prices at which CAAS is sold.[80]

Respondents note that general clad CAAS, and in particular brazing stock, is significantly higher priced that non-clad CAAS.[81]

As noted in table I-3, the responding U.S. producers reported that prices of brazing stock and other CAAS are "somewhat" similar, while U.S. purchasers reported that these were "mostly," "somewhat," or "never" similar. As presented in table I-7, the average unit value for U.S. producers' U.S. shipments of brazing stock was higher than all other in-scope CAAS during January 2015-June 2018.

Table I-7
CAAS: U.S. producers' average unit values, by product type, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

Can stock

The Commission asked U.S. producers and purchasers to comment on the comparability of CAAS and can stock, based on the Commission's six like product factors. A tabulation of their responses is presented in table I-8.[82] As shown in table I-8, the majority of responding market

[78] Domestic interested parties' postconference brief, p. 7 and prehearing brief, pp. 5-6.

[79] Respondent Valeo postconference brief, pp. 11-12.

[80] Domestic interested parties' postconference brief, p. 12 and prehearing brief, pp. 5-6.

[81] Respondent Valeo postconference brief, pp. 12-13.

[82] Firms completing more than one of the questionnaire types were asked to respond to the alternative product comparisons questions in only one questionnaire type, and in general, in the questionnaire type that is most relevant to the firm's role in the market. Staff has removed duplicate answers wherever applicable.

participants reported "never" for the domestic like product factors (with the exception of purchasers' views regarding manufacturing and perceptions). For additional information on responses from U.S. producers and U.S. purchasers, see Appendix D.

Table I-8
CAAS: U.S. producers' and U.S. purchasers' responses to the like product comparisons

Item	Fully	Mostly	Somewhat	Never
	U.S. producers			
Physical characteristics	---	---	---	6
Interchangeability	---	---	---	6
Manufacturing	---	---	2	4
Channels	---	---	---	6
Perceptions	---	---	---	6
Price	---	1	---	5
	U.S. purchasers			
Physical characteristics	1	---	---	3
Interchangeability	1	---	---	4
Manufacturing	---	1	1	1
Channels	---	---	---	2
Perceptions	---	---	1	1
Price	---	---	1	2

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

Physical characteristics and uses

The domestic interested parties argue that can stock is generally a thinner gauge than CAAS and has more stringent specifications for surface quality and uniformity of gauge. In addition, can stock is not annealed, while CAAS generally is annealed. Moreover, they argue that while CAAS has a variety of uses, can stock is used for aluminum beverage cans only.[83]

Respondents argue that can stock is made of aluminum within a continuum of gauges covered by the scope of these investigations. In addition, they contend that there is no clear dividing line in thickness, temper, or series of aluminum alloys used for can stock versus other aluminum sheet products. Moreover, can stock is another use of CAAS that falls within a continuum of aluminum sheet products.[84]

Can stock uses a 3000 series aluminum alloy for manufacturing the body of the beverage can and a 5000 series aluminum alloy for manufacturing the lid of the beverage can.[85]

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[83] Conference transcript, p. 22 (Stemple) and p. 44 (Landa).

[84] Respondent NMMA, RVIA and CE Smith postconference brief, p. 8, respondent CNIA prehearing brief, pp. 12-13, respondent NMMA prehearing brief, pp. 5-6, and hearing transcript, p. 153 (Grimson).

[85] The Aluminum Association, "Aluminum Alloys 101," http://www.aluminum.org/resources/industry-standards/aluminum-alloys-101, accessed October 30, 2018.

Six of ten U.S. producers reported producing and selling CAAS with gauges between 0.200 mm to 0.292 mm, the same range of gauges as can stock (table I-9). Five of the U.S. producers reported that CAAS was produced with H-19 temper, while four reported that can stock was produced with H-19 temper. Only *** produced both CAAS and can stock with H-19 temper. No U.S. producer reported producing CAAS with H-41 temper, H-48 temper, or H-391 temper, while 2 firms produced can stock with H-48 temper and one firm produced can stock with H-391 temper. Two of the U.S. producers reported that CAAS was produced with lubricant applied, while three reported that can stock was produced with lubricant applied (*** reported both).

Table I-9
CAAS: Comparison of can stock defining characteristics, 2017

* * * * * * *

Interchangeability

The domestic interested parties argue that can stock is not interchangeable with CAAS, noting that end users would not purchase them for use in the same application.

Respondents contend that like can stock, end use products from CAAS also have unique physical characteristics and are not interchangeable, and that like these products, can stock should not be excluded from the domestic like product based on this.[86]

All but one responding market participant reported that can stock is never interchangeable with CAAS.

Channels of distribution

The domestic interested parties contend that CAAS and can stock are sold to different channels of distribution. While CAAS is sold to distributors and end-users, can stock is only sold to firms that manufacture aluminum beverage cans.[87]

Respondents argue that the fact that can stock is sold to specific end users does not differ from sales to end uses who are OEMs of other products, such as boats or recreational vehicles. Moreover, CAAS and can stock are sold through a variety of channels, many of them overlapping.[88]

All responding market participants reported that can stock and other CAAS "never" share channels of distribution. As presented in table I-10, domestic producers ship can stock to

[86] Respondent NMMA, RVIA and CE Smith postconference brief, p. 11; respondent CNIA prehearing brief, p. 17; and respondent NMMA prehearing brief, pp. 9-10.

[87] Conference transcript, p. 23 (Stemple) and p. 44 (Landa).

[88] Respondent NMMA, RVIA and CE Smith postconference brief, p. 12; respondent CNIA prehearing brief, p. 17; respondent NMMA prehearing brief, pp. 10-11; and hearing transcript, pp. 154-155 (Grimson).

converters and end users, while shipments of CAAS is almost evenly divided among distributors, converters, and end users.

Table I-10
CAAS: U.S. producers' channels of distribution, by product type, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

Manufacturing facilities and production employees

The domestic interested parties contend that can stock is produced in separate facilities, noting that Constellium produces can stock in a separate facility from CAAS, and that Novelis produces the vast majority of its can stock at a separate facility.[89] [90] Moreover, they state that can stock is manufactured on specialized cold-rolling mills that impact a uniform surface and that a lubricant is applied, unlike CAAS, to the surface to facilitate its running at high speed. In addition, mills that produce can stock have specific process controls to ensure the required high level of consistency, in terms of thickness, surface shape, and flatness.[91]

Respondents state that the domestic industry has the ability to shift production among aluminum products including CAAS and can stock, noting that all but one U.S. producer produced can stock on the same equipment and machinery as CAAS.[92]

As shown in table I-8, the majority of U.S. producers reported that can stock and CAAS are "somewhat" or "never" similar with respect to manufacturing facilities, production processes, and production employees. Two U.S. purchasers reported that these were "mostly," "somewhat," or "never" similar.

Three of ten U.S. producers of CAAS (Alcoa Warwick, Arconic, and Novelis) produce can stock using the same equipment, machinery or employees used to produce CAAS.[93] Constellium produced can stock on separate equipment or machinery than CAAS. Table I-11 presents U.S. producers' 2017 shares of reported production of can stock and CAAS.

Table I-11
CAAS: U.S. producers' share of production, by product, 2017

* * * * * * *

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[89] Conference transcript, p. 23 (Stemple) and p. 44 (Landa).

[90] The domestic interested parties note that while it is possible to produce CAAS in a facility used to produce can stock, it is not possible to produce can stock in a facility configured to produce CAAS. Hearing transcript, p. 31 (Stemple).

[91] Hearing transcript, p. 83 (Stemple).

[92] Respondent NMMA, RVIA and CE Smith postconference brief, pp. 8-9; respondent CNIA prehearing brief, pp. 15-16; respondent NMMA prehearing brief, pp. 7-8; and hearing transcript, p. 153 (Grimson).

[93] Arconic, after the split with Alcoa, *** and entered a toll agreement with Alcoa to produce aluminum can stock. Under this agreement Alcoa supplies the raw materials, which Arconic then processes into finished can sheet coils. Arconic 2016 10-K, pp. 45-46.

Table I-12 presents production of can stock produced using the same equipment, machinery, or employees as CAAS and can stock using separate equipment, machinery, or employees.

Table I-12
CAAS: U.S. producers' production of can stock, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

Customer and producer perceptions

The domestic interested parties note that can stock and CAAS are sold to different customers and that these customers will not purchase the other type for use in their operations.

Respondents argue that while can stock has an identifiable product name, it has fewer distinguishing features from other in-scope CAAS and this does not establish meaningful product or customer perception differences.[94]

As shown in table I-8, the responding U.S. producers reported that can stock and other CAAS are "never" similar with respect to perceptions of producers and customers, while U.S. purchasers reported "somewhat" or "never."

Price

Respondents contend that the price of can stock falls within a continuum of prices at which other aluminum sheet products are sold.[95]

As presented in table I-8, all but two responding market participants reported that prices for can stock and CAAS are "never" similar. As presented in table I-13, the average unit value for U.S. producers' U.S. shipments of can stock was lower than CAAS.

[94] Respondent NMMA, RVIA and CE Smith postconference brief, p. 11; respondent CNIA prehearing brief, pp. 17-18; respondent NMMA prehearing brief, p. 11; and hearing transcript, p. 154 (Grimson).

[95] Respondent NMMA, RVIA and CE Smith postconference brief, pp. 12-13; respondent CNIA prehearing brief, pp. 19-20; and respondent NMMA prehearing brief, pp. 11-12.

Table I-13
CAAS: U.S. producers' U.S. shipments average unit values, by product type, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Unit value (dollars per short ton)				
U.S. shipments: CAAS	2,692	2,510	2,896	2,836	3,218
In-scope 0.200 mm to 0.292 mm CAAS	***	***	***	***	***
Can stock (excluded)	2,616	2,336	2,418	2,333	2,840
CAAS plus can stock	2,650	2,416	2,630	2,558	3,013

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

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

U.S. MARKET CHARACTERISTICS

CAAS is used in downstream products for the construction, automotive, energy, marine, and aerospace industries. These industries account for the vast majority of U.S. demand for CAAS. CAAS is characterized by its thickness, width, length, and strength. The latter is determined by its alloy series, alloying metal, and the properties of each specific alloy. The U.S. market for CAAS is served by a large number of producers and importers, with imports from China, Canada, and numerous other sources.

U.S. producers and importers also internally consume CAAS. In 2017, internally consumed or transferred CAAS accounted for *** percent of U.S. producers' total shipments and *** percent of importers' total shipments.

Apparent U.S. consumption of CAAS increased by 8.4 percent between 2015 and 2017, and was 2.4 percent higher in January-June 2018 than in January-June 2017.

U.S. PURCHASERS

The Commission received 35 usable questionnaire responses from firms that have purchased CAAS since 2015.[1] Sixteen responding purchasers are distributors, 15 are end users, and 5 are manufacturers/converters.[2] In general, responding U.S. purchasers were located in the Midwest, Southeast, Central Southwest, and Pacific Coast. The responding purchasers represented firms in a variety of industries, including boating, construction, and fabricating. Large purchasers of CAAS include ***.

CHANNELS OF DISTRIBUTION

U.S. producers sold CAAS in relatively equal shares to distributors, converters, and end users, while importers sold mainly to distributors, as shown in table II-1. U.S. producers *** reported selling to converters.

Table II-1
CAAS: U.S. producers' and importers' U.S. shipments, by sources and channels of distribution, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

[1] Of the 35 responding purchasers, 29 purchased U.S.-produced CAAS, 27 purchased imports of CAAS from China, and 22 purchased imports of CAAS from other sources.

[2] *** identified as both an auto end user and distributor.

GEOGRAPHIC DISTRIBUTION

U.S. producers and importers reported selling CAAS to all regions in the contiguous United States (table II-2). For U.S. producers, 7.3 percent of sales were within 100 miles of their production facilities, 79.9 percent were between 101 and 1,000 miles, and 12.7 percent were over 1,000 miles. Importers sold 46.2 percent within 100 miles of their U.S. points of shipment, 37.1 percent between 101 and 1,000 miles, and 16.6 percent over 1,000 miles.

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

Region	U.S. producers	Importers
Northeast	9	23
Midwest	10	27
Southeast	10	27
Central Southwest	9	18
Mountain	9	14
Pacific Coast	9	21
Other[1]	1	8
All regions (except Other)	9	11
Reporting firms	10	34

[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

Table II-3 provides a summary of CAAS supply factors for U.S. and Chinese producers; additional data are provided in Parts III and VII.

Table II-3
CAAS: Supply factors that affect the ability to increase shipments to the U.S. market

	Capacity (short tons)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2017 (percent)		Able to shift to alternate products
Country	2015	2017	2015	2017	2015	2017	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	1,675,550	1,623,622	78.9	81.3	11.3	14.4	91.6	8.4	7 of 10
China	2,024,895	2,209,248	59.7	81.7	6.6	4.1	70.0	10.7	10 of 11

Note.-- Responding U.S. producers accounted for virtually all of U.S. production of CAAS in 2017. Responding foreign producer/exporter firms accounted for vast majority of U.S. imports of CAAS from China during 2017. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

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

Domestic production

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

Domestic capacity utilization increased between 2015 and 2017, increasing by 2.1 percentage points from 2015 to 2016 and by 0.3 percentage point from 2016 to 2017. Domestic capacity stayed relatively consistent between 2015 and 2016, but declined by 3.0 percent between 2016 and 2017. Production increased between 2015 and 2016 and decreased from 2016 to 2017. Seven of 10 responding U.S. producers stated that they could switch production from CAAS to other products. Other products that producers reportedly can produce on the same equipment as CAAS are aluminum foil, can stock, aluminum plate, and automotive sheet. Factors affecting U.S. producers' ability to shift production include capacity, cost, existing customer orders and contracts, and technical requirements.

Subject imports from China

Based on available information, producers of CAAS from China have the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of CAAS to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity, some ability to shift shipments from alternate markets, and the ability to shift production to or from alternate products. The factors mitigating responsiveness of supply include the limited availability of inventories and an economic incentive to ship to the Chinese domestic market.

Chinese capacity utilization increased by 22 percentage points from 2015 to 2017, with both capacity and production increasing over the same period. Large export markets for China include Korea, Indonesia, and Thailand, which made up 20 percent of exports in 2017. Other products that responding foreign producers reportedly can produce on the same equipment as CAAS are can stock, aluminum foil, aluminum plate, and aluminum sheet. Factors affecting foreign producers' ability to shift production include the need for different alloy series and thickness requirements.

Chinese producers receive an export tax rebate, or refunded value added taxes ("VAT"), on CAAS products during production and sales within the Chinese domestic market. Chinese producers state that these rebates offset the VAT taxes that must be paid for CAAS that is not sold within the Chinese market. Chinese producers report that CAAS exports bears a 3 percent tax over the rebate.[3]

Imports from nonsubject sources

Imports of CAAS from nonsubject sources accounted for 60.7 percent of total U.S. imports in 2017. The largest sources of nonsubject imports during 2015-17 were Canada, Indonesia, and Bahrain. Combined, these countries accounted for 50.2 percent of CAAS imports from nonsubject sources in 2017.[4]

Supply constraints

The majority of U.S. producers and importers did not report any supply constraints since January 1, 2015. U.S. producer *** stated that since the filing of the current antidumping and countervailing petitions there has been an increase in demand in a short amount of time, and it is adjusting production operations by pursuing a partial restart of its ***. Constellium and JW Aluminum stated that since January 2015 they may have declined a small number of purchase requests, but not due to lack of supply but rather due to the sales not making "economic sense."[5] U.S. producer Aleris shut down for 75 production days, reporting 8,000 short tons less of shipments in 2017 compared to the same period in 2016 from its Lewisport facility.[6] U.S. importers *** reported being unable to purchase product from domestic producers, and *** reported being put on allocation. U.S. importer *** reported declining requests for quotation ("RFQs") from new and existing customers and reducing volumes to longstanding customers due to insufficient availability and a supply deficit in 3XXX and 5XXX alloys. U.S. importer *** stated the domestic CAAS industry does not have the capacity or capability to meet demand and certain customer specifications, providing the following example: "We had a customer who wanted to purchase above 72" wide coil. To fill the gap caused by the domestic industry's

[3] CNIA posthearing brief, p. 34; Hearing transcript, p. 202 (Xinda).

[4] Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

[5] Hearing transcript, p.101 (Stemple), p. 102 (McCarter).

[6] Hearing transcript, p. 25 (Keown).

limited capacity for this product we previously relied on imports from China; but due to the significant potential price increases, we now can only order from other non-subject countries such as Greece. The lead times for these purchases, however, will take at least 6 months and our customers cannot delay their production that long while waiting for the product. As a result, our company had to decline that order."

The majority of responding purchasers did not report supply constraints for in-scope clad (14 of 21) and brazing stock (11 of 13), but a majority of purchasers did report supply constraints for other CAAS, both in standard width (21 of 23) and wide width (14 of 23).[7] Wide width CAAS purchasers *** reported *** declining new business or placing firms on allocation due to capacity constraints. Multiple purchasers of standard and wide width CAAS reported little to no capacity in U.S. mills, increasingly longer lead times, late shipments, and quote denials. Purchaser *** stated that with the exception of China, most foreign suppliers that produce wide width CAAS have a minimum lead time of six months and U.S. mills do not have the capacity to meet the demand in the market.

New suppliers

Eight of 35 purchasers indicated that new suppliers entered the U.S. market since January 1, 2015. Purchasers cited Oman Aluminum Rolling Company, Aludium, Hydro Aluminum, and Nanshan.

U.S. demand

Based on available information, the overall demand for CAAS is likely to experience small-to-moderate changes in response to changes in price. The main contributing factors are the lack of substitute products and the varying cost share of CAAS in most of its end-use products. In addition, different alloy series (i.e., alloy 1XXX, 3XXX, and 5XXX) have different product characteristics, which makes them less applicable for certain end uses and industries. As a result, different series may exhibit different demand patterns.

End uses and cost share

U.S. demand for CAAS depends on the demand for U.S.-produced downstream products. Reported end uses include wire roof coil, common alloy coil, auto heat shield, boats, commercial transportation, residential siding, gutters and downspouts, general fabrication, cookware, and HVAC equipment. CAAS accounts for a varying share of the cost of the end-use products in which it is used. Reported cost shares for some end uses were as follows:

- Gutters and downspouts: 80 to 90 percent
- Electric and pontoon boats: 7 to 70 percent
- Transformers: 5 to 16 percent
- Cookware: 40 to 84 percent

[7] Reported wide widths ranged from 72 inches to 103 inches.

- Auto heat shield: 30 to 70 percent
- Commercial transportation: 20 to 80 percent
- Building and constructions: 10 to 90 percent
- General fabrication: 10 to 95 percent
- HVAC equipment: 5 to 95 percent.

The majority of purchasers (10 of 18) reported an increase in demand for these end use products since January 1, 2015.

Business cycles

Five of 10 U.S. producers, 15 of 45 importers, and 16 of 35 purchasers indicated that the market was subject to business cycles or conditions of competition. Specifically, due to the seasonality of the building and construction sectors, the second and third quarters of each year generally experience higher demand for, and sales of, CAAS. U.S. importers pointed to the automotive industry switching from steel to aluminum as a unique condition of competition.

Demand trends

Most firms reported an increase in U.S. demand for CAAS since January 1, 2015 (table II-4). In contrast, views of demand outside the United States were more mixed.

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

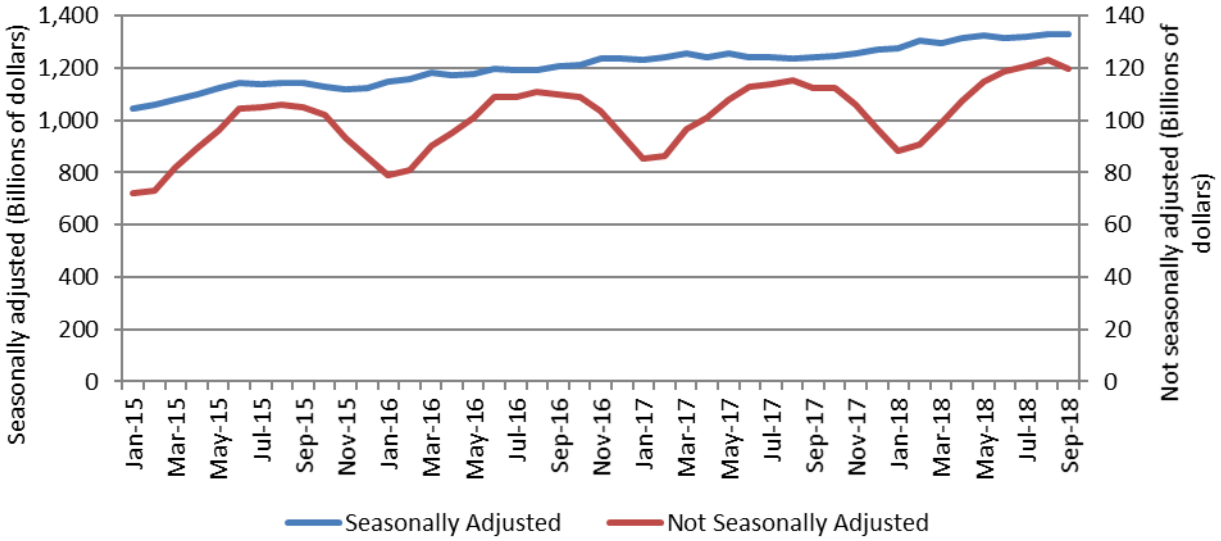
Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	6	1	---	2
Importers	26	4	3	9
Purchasers	23	3	2	3
Demand outside the United States				
U.S. producers	2	1	---	4
Importers	13	6	3	9
Purchasers	9	4	4	3

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

U.S. demand for CAAS is driven primarily by the construction and automotive markets, as well as a number of other industries. Between January 2015 and September 2018, overall construction spending increased. The total value of construction put in place (seasonally adjusted) increased by 27.5 percent between January 2015 and September 2018 (figure II-1).[8]

[8] The total value of construction put in place (not seasonally adjusted) increased by 69.1 percent during the same period.

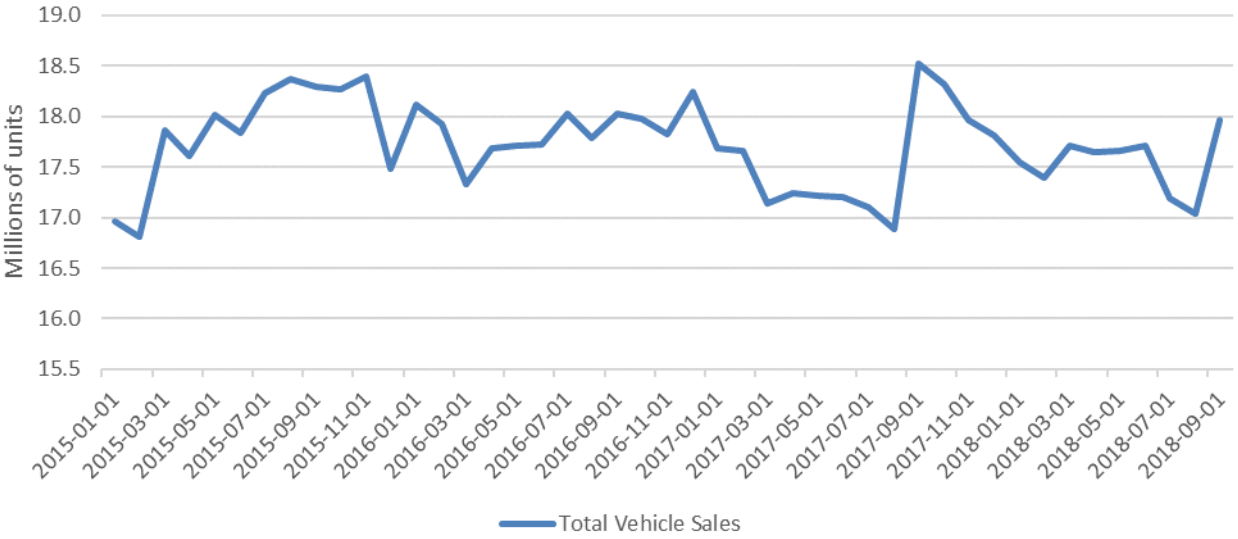
Figure II-1
Construction spending: Total value of construction put in place in the United States, not seasonally adjusted and seasonally adjusted annual rate, monthly, January 2015-September 2018



Source: U.S. Census Bureau, retrieved November 8, 2018.

Between January 2015 and September 2018, the total monthly number of vehicles sold in the United States fluctuated, peaking in late 2017 and increasing during the third quarter of 2018 (figure II-2).

Figure II-2
Vehicle sales: Total vehicle sales, millions of units, seasonally adjusted annual rate, monthly, January 2015-September 2018



Source: St. Louis FRED, retrieved November 8, 2018.

Substitute products

The vast majority of U.S. producers and importers reported that there were no substitutes. Those that identified substitutes for CAAS mostly listed copper, plastic, and steel depending on the end-use.

Effect of 232 investigation of aluminum

Half of U.S. producers (5 of 10) and a majority of importers (27 of 45) and purchasers (19 of 30) that reported being aware of the 232 investigation on imports of certain aluminum products and subsequent tariffs on imported aluminum products stated that the announcements of the 232 investigation in April 2017 impacted the conditions of competition for CAAS. U.S. producer and importer *** stated that customers with strong import strategies began requesting additional volumes of low-priced imports from China during the next contract period. U.S. producer and importer *** reported confusion and anxiety among purchasers, and vendors seeing U.S. sourcing of CAAS as a safer bet than sourcing abroad. Other responses included: rising prices, decreasing supply of Chinese CAAS, and increasing lead times. The large majority of responding U.S. producers (7 of 10), importers (38 of 45), and purchasers (31 of 31) reported that the issuance of proclamations on certain aluminum products in March 2018 impacted the conditions of competition for CAAS. Reported impacts included: increasing costs of raw materials, decreasing supply of U.S.-produced CAAS, increasing CAAS prices, and tighter capacity. Please see Appendix H for responses by firm.

Individuals or organizations that use identified aluminum products and partake in U.S. business activities can submit exclusion requests from the 232 tariffs. ***.[9] U.S. producer Novelis requested exclusion from 232 duties on "cold-rolled aluminum sheet for use in the industrial products market", elaborating that this exclusion was to avoid duties on imports from Canada.[10] U.S. importer TaChen was granted an exclusion for "aluminum alloyed cold-rolled coils" produced in Indonesia, India, South Africa, and Taiwan because Commerce stated the products "were not produced in the United States in a sufficient and reasonably available amount or of a satisfactory quality."[11]

[9] ***.

[10] Hearing transcript, p. 111 (Ricci); NMMA prehearing brief, p. 20.

[11] NMMA prehearing brief, pp. 20-21.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported CAAS depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is a moderate-to-large degree of substitutability between domestically produced CAAS and CAAS imported from China due to the large role of pricing in purchasing decisions, minor importance of buying domestically produced product, and U.S.-produced CAAS generally being viewed as comparable and interchangeable with Chinese CAAS. Some firms require certain types of CAAS that may be unavailable or available only in limited quantities from U.S. producers, such as wide width CAAS, limiting the substitutability between domestically produced CAAS and CAAS imported from China.

Lead times

CAAS is primarily produced-to-order by U.S. producers and sold from inventory by importers. U.S. producers reported that 91.3 percent of their commercial shipments were produced-to-order, with lead times averaging 47 days. The remaining 8.7 percent of their commercial shipments came from inventories, with lead times averaging 8 days. Importers reported that 38.1 percent of their commercial shipments were produced-to-order, with lead times averaging 109 days, while 44.0 percent of their U.S. commercial shipments came from U.S. inventories, with lead times averaging 5 days, and the remaining 17.9 percent of their U.S. commercial shipments came from foreign inventories, with lead times averaging 119 days.

Knowledge of country sources

Thirty-three purchasers indicated they had marketing/pricing knowledge of domestic product, 25 of Chinese product, 6 of Canadian product, and 24 of other nonsubject countries' product, including Indonesia (12 firms), India (8 firms), and Bahrain (7 firms).

As shown in table II-5, most purchasers and their customers sometimes or never make purchasing decisions based on the producer or country of origin. Of the purchasers that reported that they always make decisions based the manufacturer, two firms cited a need for higher quality product with certain specifications.

Table II-5
CAAS: Purchasing decisions based on producer and country of origin

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	8	6	13	8
Purchaser's customers make decision based on producer	---	2	11	14
Purchaser makes decision based on country	3	8	14	10
Purchaser's customers make decision based on country	---	1	12	14

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

Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for CAAS were price and cost (29 firms), quality (28 firms), and availability and supply (18 firms), as shown in table II-6. Price was the most frequently cited first-most important factor (cited by 14 firms), followed by quality (12 firms); quality was the most frequently reported second-most important factor (12 firms) followed by price (8 firms) and availability (7 firms); and other factors combined were the most frequently reported third-most important factor (11 firms).

Table II-6
CAAS: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Price / Cost	14	8	7	29
Quality	12	12	5	28
Availability / Supply	5	7	6	18
Delivery / Lead times	1	2	4	7
Other[1]	2	3	11	NA

[1] Other factors include chemical and mechanical properties, finishings, credit terms, reliability, and technical specifications.

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

The majority of purchasers (23 of 35) reported that they usually purchase the lowest-priced product. When asked if they purchased CAAS from one source although a comparable product was available at a lower price from another source, 20 purchasers reported reasons including superior quality, lead times, credit terms, and customer service.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 16 factors in their purchasing decisions (table II-7). The factors rated as very important by more than half of responding purchasers were quality meets industry standards (34), availability (33), reliability of supply (31), product consistency (30), price (29), and delivery time (25).

Table II-7
CAAS: Importance of purchase factors, as reported by U.S. purchasers, by factor

Factor	Very important	Somewhat important	Not important
Availability	33	1	1
Availability of wide-width CAAS	10	14	11
Delivery terms	17	15	2
Delivery time	25		2
Discounts offered	9	14	10
Extension of credit	13	13	9
Minimum quantity requirements	7	14	14
Packaging	14	17	4
Price	29	5	1
Product consistency	30	4	1
Product range	12	16	6
Quality meets industry standards	34	---	1
Quality exceeds industry standards	11	13	10
Reliability of supply	31	3	1
Technical support/service	12	19	5
U.S. transportation costs	12	18	5

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

Supplier certification

Twenty-two of 35 responding purchasers require their suppliers to become certified or qualified to sell CAAS to their firm. Most purchasers reported that the time to qualify a new supplier ranged from 60 to 180 days. Five purchasers reported that foreign suppliers from India and Egypt had failed in their attempt to qualify CAAS, or had lost their approved status since 2015.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since January 1, 2015 (table II-8). Twenty of 34 responding purchasers reported that they had changed suppliers since January 1, 2015. Specifically, firms dropped or reduced purchases from China and *** because of poor quality. Firms added or increased purchases from Novelis, Midwest Metals, Alnan, Nanshan, Assan, Oman Aluminum Rolling Company, and Profiglass because of favorable quality, cost, and volume conditions. Firms also reported changes because of supply constraints and quality issues at domestic mills.

Table II-8
CAAS: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	2	11	9	7	4
China	4	4	18	1	4
Canada	20	1	1	---	3
All other sources	8	2	11	4	4
Sources unknown	16	---	6	1	1

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

Importance of purchasing domestic product

Thirty of 34 purchasers reported that most or all of their purchases had no domestic requirement. Eight reported that domestic product was required by law (for 1 to 20 percent of their purchases), 11 reported it was required by their customers (for 1 to 20 percent of their purchases),[12] and 6 reported other preferences for domestic product. Reasons cited for preferring domestic product included: specific product type and lead times.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing CAAS produced in the United States, China, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 16 factors (table II-9) for which they were asked to rate the importance.

The majority of purchasers reported that U.S. and Chinese CAAS were comparable on most factors, with domestic CAAS being superior on delivery time and technical support/service. A majority of purchasers noted domestic CAAS as inferior to Chinese product on price as well as availability, both of which rated as very important factors by most purchasers (table II-7). Most purchasers reported that U.S. and nonsubject CAAS were comparable on every factor. Among the eight purchasers that compared CAAS from China with that from Canada, most rated Chinese product as superior to Canadian CAAS on availability and price.

[12] U.S. purchaser *** reported that 87 percent of its purchases were required by its customer to be U.S.-produced.

Table II-9
CAAS: Purchasers' comparisons between U.S.-produced and imported product

Factor	U.S. vs. China			U.S. vs. Canada			China vs. Canada		
	S	C	I	S	C	I	S	C	I
Availability	5	8	15	4	6	1	6	1	1
Availability of wide-width CAAS	4	8	9	3	5	---	5	1	---
Delivery terms	12	16	1	---	10	---	1	3	3
Delivery time	18	9	1	---	9	1	---	2	5
Discounts offered	3	17	5	---	8	---	2	4	1
Extension of credit	8	19	---	---	8	---	1	4	1
Minimum quantity requirements	7	17	3	1	7	---	2	4	---
Packaging	7	18	3	2	7	1	1	6	1
Price[1]	2	5	20	1	8	1	5	2	---
Product consistency	9	16	2	---	9	---	1	2	4
Product range	7	11	9	2	7	---	3	5	---
Quality meets industry standards	6	20	1	1	8	---	2	4	1
Quality exceeds industry standards	7	17	2	---	7	1	2	4	1
Reliability of supply	7	14	6	1	9	---	3	1	3
Technical support/service	14	11	3	1	9	---	3	---	4
U.S. transportation costs[1]	7	18	3	1	9	---	2	4	1

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

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

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

Comparison of U.S.-produced and imported CAAS

In order to determine whether U.S.-produced CAAS can generally be used in the same applications as imports from China, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-10, the vast majority of U.S. producers reported that CAAS from China is "always" interchangeable with domestic product, while a plurality of importers and purchasers rated Chinese product as frequently interchangeable with U.S.-produced CAAS. ***, a U.S. producer, reported that "***." U.S. importers *** reported the use of specific materials (e.g., lithographic aluminum or engineered alloys) that are not industry standard materials or available in the United States. U.S. importer *** sells a decorative CAAS that is only available from a Japanese firm, and *** produces to its customers' specifications using 5754 H114 (5/7 treadplate) that is not available in the United States. U.S. purchaser *** reported purchasing commercial quality surface material from foreign suppliers and "high end" surface quality material from the United States or Canada. *** stated that Europe typically uses alloy 5754, while U.S. producers use alloy 5052.

Table II-10
CAAS: Interchangeability between CAAS produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. China	9	1	---	---	9	17	10	3	10	13	5	2
Nonsubject countries comparisons:												
U.S. vs. Canada	9	1	---	---	7	9	3	2	5	8	1	---
China vs. Canada	9	1	---	---	4	8	5	---	2	6	3	---

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

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

As can be seen from table II-11, most responding purchasers reported that both U.S. and Chinese produced product either always or usually met minimum quality specifications.

Table II-11
CAAS: Ability to meet minimum quality specifications, by source[1]

Source	Always	Usually	Sometimes	Rarely or never
United States	15	16	3	0
China	8	13	6	0
Canada	3	6	1	0

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

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

In addition, producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of CAAS from the United States, China, and nonsubject countries. As seen in table II-12, the vast majority of U.S. producers stated that differences other than price are never a significant factor between domestic and Chinese CAAS, while the majority of importers and purchasers stated these differences are either frequently or sometimes significant. U.S. importers highlighted the importance of delivery, quality, and technical support, as well as certain products not being produced in the United States (e.g., 5052 H38 0.12 inch and 0.20 inch sheet).

Table II-12
CAAS: Significance of differences other than price between CAAS produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. China	---	---	---	10	12	9	15	3	10	3	15	---
Nonsubject countries comparisons:												
U.S. vs. Canada	---	---	---	10	4	5	6	7	2	1	4	3
China vs. Canada	---	---	---	10	3	6	6	3	4	1	6	---

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

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

ELASTICITY ESTIMATES

This section discusses elasticity estimates; parties did not comment on these estimates in their prehearing or posthearing briefs.

U.S. supply elasticity

The domestic supply elasticity[13] for CAAS measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of CAAS. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced CAAS. Analysis of these factors above indicates that the U.S. industry has the ability to moderately to significantly increase or decrease shipments to the U.S. market; an estimate in the range of 2 to 5 is suggested. The estimate for certain portions of the market may vary based on available capacity and product offerings.

U.S. demand elasticity

The U.S. demand elasticity for CAAS measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of CAAS. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the CAAS in the production of any downstream products. Based on the available information, the aggregate demand for CAAS is likely to be relatively inelastic; a range of -0.25 to -0.5 is suggested.

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

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[14] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/ discounts/ promotions, etc.). Based on the importance of supplier certification and quality, staff estimates the elasticity of substitution between U.S.-produced CAAS and imported CAAS is likely to be in the range of 3 to 6. For firms that require certain types of CAAS that may be unavailable or available only in limited quantities from U.S. producers, such as wide width CAAS, substitutability is likely to be on the lower end of this range.

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

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 ten firms that accounted for the vast majority of U.S. production of CAAS during 2017.

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 25 firms based on information contained in the documents received from Commerce, and available industry sources. Ten firms provided usable data on their productive operations.[1] Staff believes that these responses represent the vast majority of U.S. production of CAAS.

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

[1] Five firms (***) reported that they had not produced CAAS since January 1, 2015. ***. *** and email from ***, October 5, 2018 and November 7, 2018. Thus, U.S. producers' data are modestly understated.

Table III-1
CAAS: U.S. producers of CAAS, their positions on the petition, production locations, and shares of reported production, 2017

Firm	Position on imposition of duties	Production location(s)	Share of production (percent)
Alcoa Warrick	***	Newburgh, Indiana	***
Aleris	***	Lewisport, KY Uhruchsville, OH Richmond, VA Davenport, IA (2) Lincolnshire, IL Ashville, OH	***
Arconic	***	Bettendorf, IA Lancaster, PA Alcoa, TN Elmendorf, TX	***
Constellium	***	Ravenswood, WV Muscle Shoals, AL	***
Granges	***	Huntingdon, TN Salisbury, NC Newport, AR	***
Jupiter	***	Hammond, IN	***
JW Aluminum	***	Goose Creek, SC St. Louis, MO Russellville, AR Williamsport, PA	***
Novelis	***	Oswego, NY Russelville, KY	***
Reynolds	***	Hot Spring, AR	***
Skana	***	Manitowoc, WI Clarksburg, WV	***
Total			***

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

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

Table III-2
CAAS: U.S. producers' ownership, related and/or affiliated firms

* * * * * * *

As indicated in table III-2, two U.S. producers (***) are related to producers of CAAS in China and one U.S. producer (***) is related to a U.S. importer of CAAS from ***.[2] In addition, as discussed in greater detail below, one U.S. producer (***) directly imports CAAS from China.

[2] Imports of subject merchandise from *** were *** short tons in 2015 (the equivalent of *** percent of the firm's domestic production), *** short tons in 2016 (the equivalent of *** percent of the

(*continued*...)

Recent developments in U.S. industry

Table III-3 highlights recent developments in the domestic industry. Since 2015, the U.S. industry has experienced changes in ownership and consolidation, in addition to new investments in rolling mill facilities serving a variety of end markets. During this period, a major acquisition of a domestic producer by a foreign producer was suspended after failing to win approval from the Committee on Foreign Investment in the United States ("CFIUS"). Two producers announced in late 2014 that they would laid off workers, and one producer was acquired by another producer during the summer of 2016. Table III-3 also highlights recent trade actions taken under Section 232 of the Trade Expansion Act of 1962.

Table III-3
CAAS: Important industry events, since January 1, 2015

Year	Company	Description of event
2015	***	***.
	Aleris Corporation	**Sale:** Aleris announced that it would sell its Alsco facility at the company's operations in Ashville, Ohio. The facility produced coated aluminum sheet for building and construction, transportation, and other end use applications.[1]
	AluminumSource LLC (now Alpha Aluminum)	**Acquisition**: AluminumSource LLC acquired Oracle Flexible Packaging's aluminum rolling assets. **Name change**: AluminumSource LLC changed its name to Alpha Aluminum.[2]
2016	***	***.
	Gränges Americas Inc.	**Acquisition**: Gränges acquired Noranda Aluminum Holding Corporation's downstream aluminum rolling assets (including sheet) in the United States.[3]
	Aleris Corporation	**Acquisition**: Aleris announced that it entered into a definitive agreement to be acquired by Zhongwang USA LLC, a subsidiary of China Zhongwang Holdings Limited, the parent company of China Zhongwang.[4]
	Constellium/UACJ Corporation	**New facility**: Constellium and UACJ Corporation announced the opening of their new sheet manufacturing plant in Bowling Green, Kentucky. The facility will operate under the companies' joint venture, Constellium-UACJ ABS LLC.[5]
	Alcoa/Arconic	**Company split:** Alcoa Inc. announced that it was splitting into two separate companies: Alcoa Corporation and Arconic Inc. Alcoa Corporation retained Alcoa Inc.'s upstream assets (primary smelting), while Arconic Inc. acquired the former company's downstream assets, including most of Alcoa Inc.'s aluminum rolling facilities. The separation took effect on November 1, 2016.[6]

Table continued on next page.

(…*continued*)
firm's domestic production) and *** short tons in 2017 (the equivalent of *** percent of the firm's domestic production). ***.

According to *** during January 2015-June 2018. ***.

Table III-3—Continued
CAAS: Important industry events, since January 1, 2015

Year	Company	Description of event
2017	Skana Aluminum	**Expansion**: Skana Aluminum completed an expansion of the casthouse at the company's Manitowoc, Wisconsin rolling mill operations.[7]
	Braidy Industries	**New facility**: Braidy Industries announced that it would construct a greenfield aluminum rolling mill near Ashland, Kentucky.[8]
	***	***.
	Gränges Americas Inc.	**Investment**: Granges announced that it would invest $110 million to expand its rolling mill operations in Huntingdon, Tennessee.[9]
	Aleris Corporation	**Expansion**: Aleris opened a $400 million sheet production facility in Lewisport, Kentucky. The facility primarily produces out-of-scope aluminum sheet.[10]
		Acquisition suspended: Aleris Corporation and Zhongwang USA announced that their planned merger was suspended after failing to win approval from CFIUS.[11]
	Novelis	**Expansion**: Novelis announced that it would invest $4.5 million at its aluminum rolling operations in Warren, Ohio.[12]
	Commerce	**Section 232**: On April 26, 2017, the Secretary of Commerce ("Secretary") initiated an investigation to determine the impact on national security of U.S. aluminum imports under section 232 of the Trade Expansion Act of 1962, as amended.[13]
		Section 232: The President issued, on April 27, 2017, a Memorandum directing the Secretary to prioritize Commerce's Section 232 investigation, submit a report to the President, and, as appropriate, provide remedy recommendations to adjust aluminum imports so that they will not threaten to impair national security.[14]
2018	***	***: ***.
	Commerce	**Section 232**: The Secretary transmitted to the President, on January 19, 2018, Commerce's report of its findings and remedy recommendations on U.S. aluminum imports.[15]
	The White House	**Section 232**: The President announced, on March 8, 2018, his decision to impose 10-percent ad valorem duties on U.S. imports of aluminum products classifiable under HTS subheadings (a) unwrought aluminum (HTS 7601); (b) aluminum bars, rods, and profiles (HTS 7604); (c) aluminum wire (HTS 7605); (d) aluminum plate, sheet, strip, and foil (flat rolled products) (HTS 7606 and 7607); (e) aluminum tubes and pipes and tube and pipe fitting (HTS 7608 and 7609); and (f) aluminum castings and forgings (HTS 7616.99.51.60 and 7616.99.51.70), including any subsequent revisions to these HTS classifications. Canada and Mexico were the only U.S. trade partners that the President explicitly exempted from these section 232 duties on imported aluminum.[16]
	Commerce	**Section 232**: Commerce issued, on March 19, 2018 an interim final rule amending the National Security Industrial Base Regulations to allow parties to submit, through the Bureau of Industry and Security, either (1) requests for or (2) objections to granting product-specific (by HTS 10-digt statistical reporting numbers) exclusions from the President's section 232 aluminum remedies.[17]

Table continued on next page.

Table III-3—Continued
CAAS: Important industry events, since January 1, 2015

Year	Company	Description of event
2018	The White House	**Section 232**: Citing important national security relationships with certain U.S. trade partners, the President announced on March 22, 2018, his decision to temporarily suspend the section 232 duties through May 1, 2018, on U.S. imports of subject aluminum products from Argentina, Australia, Brazil, Canada, Mexico, the European Union member states, and South Korea. The President stated that he would decide whether to continue to exempt these trade partners based on progress in negotiating satisfactory long-term alternatives to address import threats to U.S. national security.[18]
	The White House	**Section 232**: The President announced on April 30, 2018, his subsequent decisions regarding the temporary section 232 duty exemptions, based on the status of negotiating satisfactory alternative measures to remove the import threat to U.S. national security, posed by U.S. imports of subject aluminum products from: • Argentina, Australia, and Brazil— citing agreements reached in principle, an expiration date for these continued exemptions was not imposed, but re-imposition of the tariffs will be considered if satisfactory alternative measures are not soon finalized; • Canada, the European Union member states, Mexico, and South Korea— citing ongoing negotiations, the exemptions would expire after May 31, 2018, unless satisfactory alternative measures are finalized.[19]
	Novelis	**Acquisition:** On July 26, 2018, Aleris announced that it entered into a definitive agreement to be acquired by Novelis.[20]
	The White House	**Section 232**: The President announced on May 31, 2018, his subsequent decisions regarding the temporary section 232 duty exemptions announced on April 30, 2018, based on the status of negotiating satisfactory alternative measures to remove the import threat to U.S. national security posed by U.S. imports of subject aluminum products from: • Argentina and Australia—citing agreements on a range of measures, including reducing excess aluminum production and capacity and measures to prevent the transshipment of aluminum articles, these countries are now exempt from the Section 232 tariffs. The United States will continue to monitor the implementation and effectiveness of the measures agreed upon. Imports of subject aluminum articles from Argentina are subject to an absolute annual quota, while subject articles from Australia are not subject to a tariff or quota.[21] • Tariffs will no longer be suspended for aluminum imports from Brazil, Canada, European Union member countries, Mexico, and South Korea. Aluminum articles, including common alloy aluminum sheet, will be subject to a 10 percent ad-valorem duty.[22]

Table continued on next page.

Table III-3—Continued
CAAS: Important industry events, since January 1, 2015

Year	Company	Description of event
2018	The White House	**Section 232:** The President announced on August 29, 2018 that the Secretary is hereby authorized to grant product exclusions to the quantitative limitations applicable to aluminum articles for any aluminum article not produced in the United States in sufficient and reasonable quantity. Requests for relief will only be provided for those aluminum articles for which a request is made by a directly affected party in the United States. The Presidential Proclamation also instructed the Secretary to issue procedures for the requests for exclusion from the Section 232 tariffs and quantitative limitations.[23]
	***	***: ***.
	Arconic	**Sale:** Arconic announced on October 1, 2018 that it would sell its aluminum rolling mill in Texarkana, Texas to the American subsidiary of Ta Chen Stainless Pipe Co., Ltd. (Ta Chen).[24]

[1] Chillicothe Gazette, "Nearly 40 Affected by Company Sale," March 18, 2015, http://www.chillicothegazette.com/story/news/local/2015/03/18/nearly-affected-company-sale/24964079/, (accessed December 18, 2017).
[2] Platts, "AluminumSource Acquires NC Aluminum Mill, Plans to Expand it," August 13, 2015, https://www.platts.com/latest-news/metals/washington/aluminumsource-acquires-nc-aluminum-mill-plans-21964943, (accessed November 28, 2017).
[3] Granges, "U.S. Acquisition to Strengthen Granges Position and Create Opportunities for Growth," August 17, 2016, http://www.granges.com/media/press-releases/2016/us-acquisition-to-strengthen-granges-position-and-create-opportunities-for-growth/, (accessed November 28, 2017).
[4] Aleris, "New Releases: Aleris to be Acquired by Zhongwang USA LLC," August 29, 2016, http://investor.aleris.com/2016-08-29-Aleris-To-Be-Acquired-By-Zhongwang-USA-LLC, (accessed December 8, 2017).
[5] Constellium, "Constellium and UACJ Announce Opening of their Joint Venture's Autmotive Body Sheet Plant in Bowling Green, Kentucky," Spetember 14, 2016, http://www.constellium.com/media/news-and-press-releases/press-releases-only/constellium-and-uacj-announce-opening-of-their-joint-venture-s-automotive-body-sheet-plant-in-bowling-green-kentucky, (accessed December 14, 2017).
[6] Alcoa Inc, "Alcoa Inc. Board of Directors Approves Separation of Company," September 29, 2018, https://news.alcoa.com/press-release/alcoa-inc-board-directors-approves-separation-company, (accessed October 1, 2018).
[7] Skana Aluminum, "Who We Are," http://www.skanaaluminum.com/about.html, (accessed December 8, 2017).
[8] Engineering.com, "Braidy Industries to Build $1.3B Aluminum Rolling Mill in Eastern Kentucky," April 28, 2017, https://www.engineering.com/AdvancedManufacturing/ArticleID/14825/Braidy-Industries-to-Build-USD13B-Aluminum-Rolling-Mill-in-Eastern-Kentucky.aspx, (accessed December 14, 2017).
[9] Aluminum Insider, "Granges Announces $110 Million Expansion at Tennessee Aluminum Rolling Mill," September 16, 2017, https://aluminiuminsider.com/granges-announces-us110-million-expansion-tennessee-aluminium-rolling-mill/, (accessed December 14, 2017).
[10] Aluminum Insider, "Aleris Opens U.S. $400 Million Aluminum Auto Body Sheet Production Facility in NW Kentucky, November 17, 2017, http://aluminiuminsider.com/aleris-opens-us400-mm-aluminium-auto-body-sheet-production-facility-nw-kentucky/, (accessed November 21, 2017).
[11] Business Insider, "Aluminum Maker Aleris Says Zhongwang USA Deal is Off," November 13, 2017, http://www.businessinsider.com/r-aluminum-maker-aleris-says-zhongwang-usa-deal-is-off-2017-11, (accessed December 8, 2017).
[12] Novelis, "News Releases: Novelis Invests $4.5 million at Warren Facility," November 28, 2017, http://investors.novelis.com/news-releases?item=643, (accessed December 8, 2017).
[13] 82 FR 21509, May 9, 2017, https://www.federalregister.gov/d/2017-09328/p-3 (accessed September 28, 2018).

Footnotes continued on next page.

Table III-3—Continued
CAAS: Important industry events, since January 1, 2015

[14] Ibid.
[15] The White House, "Presidential Proclamation on Adjusting Imports of Aluminum into the United States," March 8, 2018, https://www.whitehouse.gov/presidential-actions/presidential-proclamation-adjusting-imports-aluminum-united-states/, (accessed September 28, 2018).
[16] Ibid.
[17] 83 FR 12106, March 19, 2018, https://www.federalregister.gov/d/2018-05761/p-3, (accessed September 28, 2018).
[18] The White House, "President Trump Approves Section 232 Tariff Modifications," March 22, 2018, https://www.whitehouse.gov/briefings-statements/president-trump-approves-section-232-tariff-modifications/, (accessed September 28, 2018).
[19] The White House, Presidential Proclamation Adjusting Imports of Aluminum into the United States," April 30, 2018, https://www.whitehouse.gov/presidential-actions/presidential-proclamation-adjusting-imports-aluminum-united-states-3/, (accessed September 28, 2018).
[20] Novelis, "Novelis to Acquire Downstream Aluminum Producer Aleris," July 26, 2018, http://investors.novelis.com/2018-07-26-Novelis-to-Acquire-Downstream-Aluminum-Producer-Aleris, (accessed October 12, 2018).
[21] U.S. Customs and Border Protection, "QB 18-127 Absolute Quota for Aluminum Products: Argentina," June 29, 2018, https://www.cbp.gov/trade/quota/bulletins/qb-18-127-absolute-quota-aluminum-products-argentina, (accessed September 28, 2018).
[22] The White House, Presidential Proclamation Adjusting Imports of Aluminum into the United States," May 31, 2018, https://www.whitehouse.gov/presidential-actions/presidential-proclamation-adjusting-imports-aluminum-united-states-4/, (accessed September 28, 2018).
[23] The White House, Presidential Proclamation Adjusting Imports of Aluminum into the United States," August 29, 2018, https://www.whitehouse.gov/presidential-actions/presidential-proclamation-adjusting-imports-aluminum-united-states-5/, (accessed September 28, 2018).
[24] Aluminum Insider, "Arconic Sells Texarkana Aluminum Rolling Mill to Taiwan Firm for US$300 Million Plus Contingency Cash," October 3, 2018, https://aluminiuminsider.com/arconic-sells-texarkana-aluminium-rolling-mill-to-taiwan-firm-for-us300-million-plus-contingency-cash/, (accessed October 4, 2018).

Note.–Presentation redacts business proprietary information revealed in surveys for which no public source found.

Note.--Arconic's rolling mill operations in Texarkana, Arkansas have been idle since September 2009. Arconic Inc., "2016 Annual Shareholder Report," December 31, 2016, https://www.arconic.com/global/en/investment/pdfs/2016-Annual-Report.pdf, (accessed December 18, 2017), p. 5; Constellium announced that it entered into a definitive agreement to acquire Wise Metals Intermediate Holdings LLC, a producer of aluminum sheet located in Muscle Shoals, Alabama. Constellium, "Constellium Acquires Wise Metals and is to Become a Leader in the North American Body-in-White Market," October 3, 2014, http://www.constellium.com/media/news-and-press-releases/press-releases-only/wise-metals-biw-acquisition, (accessed December 18, 2017).

Source: Various company websites and news articles.

Table III-4 presents U.S. producers' reported changes in operations since January 1, 2015.

Table III-4
CAAS: U.S. producers' reported changes in operations, since January 1, 2015

* * * * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-5 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. U.S. producers' capacity decreased during 2015-17, decreasing by 0.1 percent between 2015 and 2016 and by 3.0 percent in 2017, ending 3.1 percent lower than in 2015. Capacity was 1.5 percent higher in January-June 2018 compared with January-June 2017. The decline between 2015 and 2017 was due to ***.[3] This decline was partially offset by an increase in capacity at *** which stated that ***.[4]

U.S. producers' production increased by 2.6 percent between 2015 and 2016 and then decreased by 2.7 percent between 2016 and 2017, ending 0.1 percent lower than in 2015. Production was 2.0 percent higher in January-June 2018 compared with January-June 2017. While six of the ten U.S. producers reported increased production between 2015 and 2016, *** had the largest increase, followed by ***. *** stated that it ***, while ***.[5] ***. This decline in production was offset by an increase in CAAS production by ***.[6]

Capacity utilization increased by 2.2 percentage points between 2015 and 2016 and 0.2 percentage points in 2017, ending 2.4 percentage points higher than in 2015. Capacity utilization was 0.5 percentage points higher in January-June 2018 compared with January-June 2017.[7]

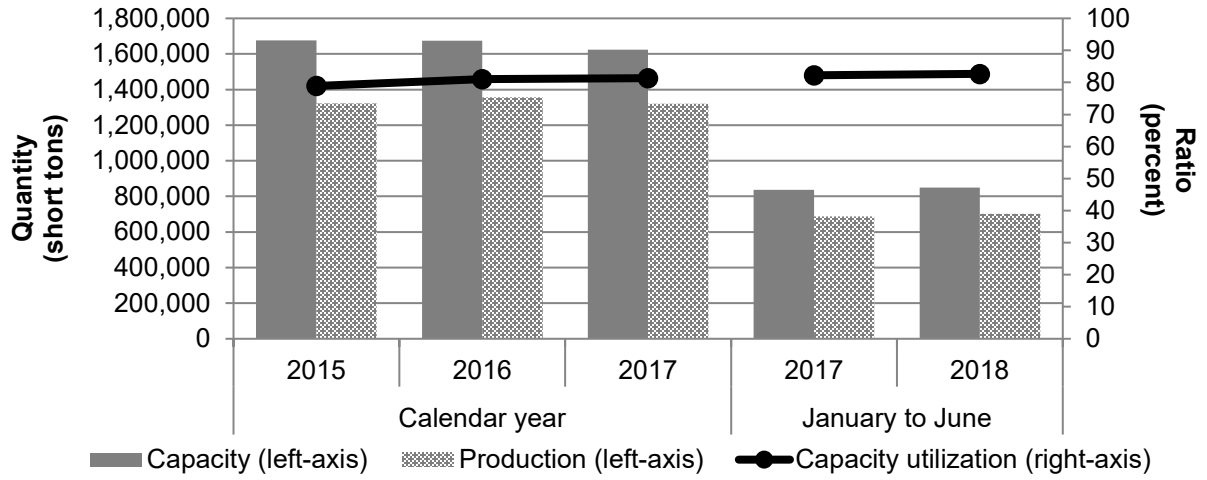
[3] ***.
[4] Email from ***, September 24, 2018.
[5] ***.
[6] Emails from *** December 20, 2017, September 21, 2018, and September 26, 2018.
[7] ***. Email from *** September 24, 2018, ***, and ***.

Table III-5
CAAS: U.S. producers' production, capacity, and capacity utilization, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Capacity (short tons)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Reynolds	***	***	***	***	***
Skana	***	***	***	***	***
Total capacity	1,675,550	1,674,300	1,623,622	836,474	848,768
	Production (short tons)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Reynolds	***	***	***	***	***
Skana	***	***	***	***	***
Total production	1,322,116	1,357,023	1,320,581	687,733	701,796
	Capacity utilization (percent)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Reynolds	***	***	***	***	***
Skana	***	***	***	***	***
Average capacity utilization	78.9	81.1	81.3	82.2	82.7

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

Figure III-1
CAAS: U.S. producers' production, capacity, and capacity utilization, 2015-17, January to June 2017, and January to June 2018



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

Alternative products

The domestic interested party stated that aluminum can stock, aluminum foil, and aluminum plate share the same equipment and machinery with CAAS in the hot-rolling phase of the production process, but have dedicated and distinct equipment and machinery in the casting and finishing stages.[8] As shown in table III-6, 34.4 percent of the product produced in 2017 by U.S. producers was CAAS.[9] Three of the ten U.S. producers (Alcoa Warrick, Arconic, and Novelis) reported producing aluminum can stock (excluded from the scope) on the same machinery and equipment as CAAS, which accounted for the second largest share of production on shared plant capacity during January 2015-June 2018.[10] Overall capacity utilization during 2015-17 ranged from 85.8 to 88.3 percent, while CAAS capacity utilization ranged from 78.9 from 81.1 percent. Overall capacity was 0.4 percent lower in January-June 2018 compared with January-June 2017.

[8] Domestic interested party's postconference brief, Answers to Staff questions, p. 6.

[9] Other out-of-scope products include auto coil, auto body sheet, aero coil, aero sheet, other heat treat products, reroll and building/construction, and aluminum sheet 7XXX and 8XXX series used in manufacturing of aluminum foil. Three of the five producers (Aleris, Arconic, and Novelis) that had production of other out-of-scope products produced 6XXX series aluminum on the same equipment and machinery as CAAS.

[10] Arconic, after the split with Alcoa Warrick, *** and entered a toll agreement with Alcoa Warrick to produce aluminum can stock. Arconic 2016 10-K, pp. 45-46.

Table III-6
CAAS: U.S. producers' overall plant capacity and production on the same equipment as subject production, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
Overall capacity	4,299,775	4,327,425	4,393,375	2,215,763	2,201,163
Production:					
CAAS (subject in-scope)	1,322,116	1,357,023	1,320,581	687,733	701,796
Aluminum can stock (excluded)	1,319,532	1,248,582	1,245,102	631,903	618,966
Aluminum foil (out-of-scope)	367,801	379,314	383,616	193,198	195,356
Aluminum plate (out-of-scope)	175,513	169,995	174,635	87,309	87,135
Aluminum 6XXX (out-of-scope)	185,907	226,851	258,079	124,679	137,107
Other products (out-of-scope)	317,317	437,674	455,606	231,833	239,078
Subtotal, non-CAAS production	2,366,070	2,462,416	2,517,038	1,268,922	1,277,642
Total production on same machinery	3,688,186	3,819,439	3,837,619	1,956,655	1,979,438
	Ratios and shares (percent)				
Overall capacity utilization	85.8	88.3	87.4	88.3	89.9
Share of production:					
CAAS (subject in-scope)	35.8	35.5	34.4	35.1	35.5
Aluminum can stock (excluded)	35.8	32.7	32.4	32.3	31.3
Aluminum foil (out-of-scope)	10.0	9.9	10.0	9.9	9.9
Aluminum plate (out-of-scope)	4.8	4.5	4.6	4.5	4.4
Aluminum 6XXX (out-of-scope)	5.0	5.9	6.7	6.4	6.9
Other products (out-of-scope)	8.6	11.5	11.9	11.8	12.1
Subtotal, non-CAAS production	64.2	64.5	65.6	64.9	64.5
Total production on same machinery	100.0	100.0	100.0	100.0	100.0

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

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

Table III-7 presents U.S. producers' U.S. shipments, export shipments, and total shipments. One firm, ***, had internal consumption,[11] none had transfers to related firms, and seven firms (all but ***) had exports to ***. U.S. producers' U.S. shipments, by quantity, declined by 1.4 percent between 2015 and 2017, increasing by 1.9 percent in 2016 and declining by 3.2 percent in 2017, but were 1.9 percent higher in January-June 2018 compared with January-June 2017. Three U.S. producers (***) accounted for the decline between 2015 and 2017, while the higher quantity in January- June 2017 was largely due to ***. Several firms

[11] Internal consumption accounted for *** to *** percent of the firm's U.S. shipments, by quantity, during January 2015-June 2018.

including Aleris, Arconic, Constellium, and Novelis, reported that they curtailed U.S. shipments of CAAS due to lower priced CAAS imports from China.[12]

Average unit values of U.S. shipments declined by 6.8 percent between 2015 and 2016, increased by 15.4 percent in 2017, and were 13.5 percent higher in January-June 2018 compared with January-June 2017. All U.S. producers followed this pattern, albeit at different rates. Arconic noted that the higher average unit values in January-June 2018 were to due to ***.[13]

Table III-7
CAAS: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. shipments	1,207,766	1,230,301	1,191,255	624,992	636,803
Export shipments	121,656	110,008	109,913	50,326	63,037
Total shipments	1,329,422	1,340,309	1,301,168	675,318	699,840
	Value (1,000 dollars)				
U.S. shipments	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064
Export shipments	426,583	317,511	365,485	161,312	234,796
Total shipments	3,678,215	3,405,814	3,815,526	1,933,662	2,283,860
	Unit value (dollars per short ton)				
U.S. shipments	2,692	2,510	2,896	2,836	3,218
Export shipments	3,506	2,886	3,325	3,205	3,725
Total shipments	2,767	2,541	2,932	2,863	3,263
	Share of quantity (percent)				
U.S. shipments	90.8	91.8	91.6	92.5	91.0
Export shipments	9.2	8.2	8.4	7.5	9.0
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments	88.4	90.7	90.4	91.7	89.7
Export shipments	11.6	9.3	9.6	8.3	10.3
Total shipments	100.0	100.0	100.0	100.0	100.0

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

Table III-8 presents U.S. producers' U.S. shipments by product type. The majority of U.S. producers' U.S. shipments were of non-clad 3XXX series, followed by non-clad 5XXX series. Nine firms (all but ***) had U.S. shipments of non-clad 1XXX series, nine (all but ***) of non-clad 3XXX series, seven of non-clad 5XXX series, two (***) of clad or multi-alloy, and three (***) of other products.[14]

[12] Conference transcript, p. 21 (Stemple), p. 27 (Keown), pp. 30-31 (Boittiaux), and p. 40 (Landa).
[13] Email from ***, September 21, 2018.
[14] Other products include ***.

Table III-8
CAAS: U.S. producers' U.S. shipments by product type, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. shipments.-- Non-clad 1XXX series CAAS	98,342	106,409	106,763	56,051	51,214
Non-clad 3XXX series CAAS	668,952	708,556	675,360	346,218	368,348
Non-clad 5XXX series CAAS	345,393	331,599	331,894	181,750	177,460
Non-clad CAAS	1,112,687	1,146,564	1,114,017	584,019	597,022
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	1,207,766	1,230,301	1,191,255	624,992	636,803
	Value (1,000 dollars)				
U.S. shipments.-- Non-clad 1XXX series CAAS	248,940	251,172	296,914	152,405	158,101
Non-clad 3XXX series CAAS	1,649,157	1,631,777	1,840,396	922,093	1,106,342
Non-clad 5XXX series CAAS	1,025,854	898,612	1,038,166	557,944	627,697
Non-clad CAAS	2,923,951	2,781,561	3,175,476	1,632,442	1,892,140
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064
	Unit value (dollars per short ton)				
U.S. shipments.-- Non-clad 1XXX series CAAS	2,531	2,360	2,781	2,719	3,087
Non-clad 3XXX series CAAS	2,465	2,303	2,725	2,663	3,004
Non-clad 5XXX series CAAS	2,970	2,710	3,128	3,070	3,537
Non-clad CAAS	2,628	2,426	2,850	2,795	3,169
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	2,692	2,510	2,896	2,836	3,218
	Share of quantity (percent)				
U.S. shipments.-- Non-clad 1XXX series CAAS	8.1	8.6	9.0	9.0	8.0
Non-clad 3XXX series CAAS	55.4	57.6	56.7	55.4	57.8
Non-clad 5XXX series CAAS	28.6	27.0	27.9	29.1	27.9
Non-clad CAAS	92.1	93.2	93.5	93.4	93.8
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	100.0	100.0	100.0	100.0	100.0

Note.--Nine firms had U.S. shipments of non-clad 1XXX series, nine of non-clad 3XXX series, seven of non-clad 5XXX series, two of clad or multi-alloy, and three of other products.

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

Table III-9 presents U.S. producers' U.S. shipments of CAAS by width. Five firms (***) had U.S. shipments of extra-wide CAAS (72 inches or wider). U.S. production of extra-wide CAAS represented between *** percent and *** percent of total U.S. production of CAAS during January 2015 to June 2018. Only one of the five reporting U.S. producers (***) reported producing extra-wide CAAS on dedicated equipment, noting that it was produced ***.[15] The average unit value of U.S. producers' U.S. shipments of extra-wide CAAS was higher than that of all other CAAS during January 2015 to June 2018.

Table III-9
CAAS: U.S. producers' production and U.S. shipments of CAAS by width, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
Production (short tons).-- Extra wide CAAS	***	***	***	***	***
Other than extra wide CAAS	***	***	***	***	***
All in-scope products	1,322,116	1,357,023	1,320,581	687,733	701,796
Share of production (percent).-- Extra wide CAAS	***	***	***	***	***
Other than extra wide CAAS	***	***	***	***	***
All in-scope products	100.0	100.0	100.0	100.0	100.0
Extra-wide CAAS.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollar per short ton)	***	***	***	***	***
Other than extra-wide CAAS.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollar per short ton)	***	***	***	***	***
All in-scope CAAS.-- U.S. shipments (short tons)	1,207,766	1,230,301	1,191,255	624,992	636,803
U.S. shipments (1,000 dollars)	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064
U.S. shipments (dollar per short ton)	$2,692	$2,510	$2,896	$2,836	$3,218

Note.--Five firms had U.S. shipments of extra-wide CAAS.

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

Table III-10 presents U.S. producers' U.S. shipments of CAAS by gauge. Six firms produced CAAS with gauges between 0.200 mm to 0.292 mm. These firms stated that this CAAS differs from can stock in that it is sold to different end users for different end uses, is from different alloy, and ***. The average unit value of U.S. producers' U.S. shipments of CAAS with

[15] *** U.S. producer questionnaire, section III-13.

gauges between 0.200 mm to 0.292 mm was higher than that of all other CAAS during January 2015 to June 2018.

Table III-10
CAAS: U.S. producers' production and U.S. shipments of CAAS by gauge, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
Production (short tons).-- 0.200 mm to 0.292 mm CAAS	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS	***	***	***	***	***
All in-scope products	1,322,116	1,357,023	1,320,581	687,733	701,796
Share of production (percent).-- 0.200 mm to 0.292 mm CAAS	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS	***	***	***	***	***
All in-scope products	100.0	100.0	100.0	100.0	100.0
In-scope 0.200 mm to 0.292 mm CAAS.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollar per short ton)	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollar per short ton)	***	***	***	***	***
All in-scope CAAS.-- U.S. shipments (short tons)	1,207,766	1,230,301	1,191,255	624,992	636,803
U.S. shipments (1,000 dollars)	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064
U.S. shipments (dollar per short ton)	$2,692	$2,510	$2,896	$2,836	$3,218

Note.—Six firms produced CAAS with gauges between 0.200 mm to 0.292 mm.

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

U.S. PRODUCERS' INVENTORIES

Table III-11 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.** U.S. producers' end-of-period inventories increased during 2015-17, ending 24.1 percent higher in 2017 than in 2015, and were 5.4 percent higher in January-June 2018 compared with January-June 2017.[16] The ratios of inventories to U.S. production, U.S. shipments, and total shipments increased between 2015 and 2017, and were higher in January-June 2018 compared with January-June

[16] Domestic interested parties noted that since demand for CAAS generally follows the construction season (approximately March through November), U.S. producers typically build up inventories in the other months. Hearing transcript, p. 103 (McCarter).

2017. *** accounted for the majority of the increase in inventories and had the highest ratio of inventories to U.S. production, U.S. shipments, and total shipments, except in 2015, when ***.

Table III-11
CAAS: U.S. producers' inventories, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. producers' end-of-period inventories	150,504	167,218	186,837	179,839	189,473
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	11.4	12.3	14.1	13.1	13.5
U.S. shipments	12.5	13.6	15.7	14.4	14.9
Total shipments	11.3	12.5	14.4	13.3	13.5

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

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports and purchases of CAAS are presented in table III-12. *** were the only U.S. producers to import CAAS from China. *** ratio to U.S. production of imports from subject sources was not greater than *** percent in any period.[17] *** ratio to U.S. production of imports from subject sources was not greater than *** percent in any period.[18]

Table III-12
CAAS: U.S. producers' U.S. production, imports and purchases, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-13 shows U.S. producers' employment-related data. The number of production and related workers ("PRWs") declined by 23 between 2015 and 2017, but was 4 higher in January-June 2018 compared with January-June 2017. All employment factors except productivity were higher in 2017 than in 2015; likewise all employment factors except productivity were higher in January-June 2018 compared to January-June 2017.

[17] *** did not provide a reason for its imports from China.

[18] *** stated that its reason for its *** volume of imports was to ***.

Table III-13
CAAS: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
Production and related workers (PRWs) (number)	5,055	5,005	5,032	4,917	4,921
Total hours worked (1,000 hours)	11,131	11,190	11,175	5,665	5,781
Hours worked per PRW (hours)	2,202	2,236	2,221	1,152	1,175
Wages paid ($1,000)	324,212	338,942	359,016	177,149	194,055
Hourly wages (dollars per hour)	$29.13	$30.29	$32.13	$31.27	$33.57
Productivity (short tons per hour)	118.8	121.3	118.2	121.4	121.4
Unit labor costs (dollars per short ton)	$245	$250	$272	$258	$277

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

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 165 firms believed to be importers of subject CAAS, as well as to all U.S. producers of CAAS.[1] Usable questionnaire responses were received from 49 companies, including the top 10 importers of CAAS from China and from all other sources.[2] [3] Table IV-1 lists all responding U.S. importers of CAAS from China and other sources, their locations, and their shares of U.S. imports, in 2017.

Table IV-1
CAAS: U.S. importers by source, 2017

Firm	Headquarters	Share of imports by source (percent)				
		China	Canada	All other sources	Nonsubject sources	All import sources
AA Metals	Orlando, FL	***	***	***	***	***
Agfa	Elmwood Park, NJ	***	***	***	***	***
Alanod	North Ridgeville, OH	***	***	***	***	***
Albert	Bremen, HB	***	***	***	***	***
Alufoil	Hauppauge, NY	***	***	***	***	***
Aluwind	Castle Rock, CO	***	***	***	***	***
Alweld	Londsale, AR	***	***	***	***	***
Amag	Ranshofen, Austria,	***	***	***	***	***
Amcor	Quebec, Canada	***	***	***	***	***
Argosy	New York, NY	***	***	***	***	***
Buyers	Mentor, OH	***	***	***	***	***
CAC	Lake Forest, CA	***	***	***	***	***
Construction Specialties	Lebanon, NJ	***	***	***	***	***
DNP	New York, NY	***	***	***	***	***
Eastman Kodak	Rochester, NY	***	***	***	***	***
ElvalHalcor	Oinofyta, Viotia, Greece,	***	***	***	***	***
Empire	Fort Lee, NJ	***	***	***	***	***
Far East	Carson, CA	***	***	***	***	***

Table continued on next page.

[1] The Commission issued questionnaires to those firms identified in the documents received from Commerce, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports in any year during 2015-2017 under HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.126.000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080.

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

[3] *** provided a response using EU number formatting and quantities in metric tons. Staff has converted the import data into the requested short tons and thousands of dollars. *See* email from ***, December 21, 2017.

Table IV-1--Continued
CAAS: U.S. importers by source, 2017

Firm	Headquarters	Share of imports by source (percent)				
		China	Canada	All other sources	Nonsubject sources	All import sources
Fujifilm	Greenwood, SC	***	***	***	***	***
Galex	Monsey, NY	***	***	***	***	***
General Cable	Highland Heights, KY	***	***	***	***	***
Gramco	Winter Garden, FL	***	***	***	***	***
Granges	Franklin, TN	***	***	***	***	***
Hanon	Heerlen, Netherlands,	***	***	***	***	***
Hanon Alabama	Shorter, AL	***	***	***	***	***
Hudson	Morristown, NJ	***	***	***	***	***
Hunter Douglas	Homewood, IL	***	***	***	***	***
Ideal Products	Malvern, PA	***	***	***	***	***
Jupiter	Hammond, IN	***	***	***	***	***
JW Aluminum	Goose Creek, SC	***	***	***	***	***
Manakin	Manakin Sabot, VA	***	***	***	***	***
Medalco	South Hadley, MA	***	***	***	***	***
Metal Exchange	Saint Louis, MO	***	***	***	***	***
Meyer	Sheboygan Falls, WI	***	***	***	***	***
Midwest	Louisville, KY	***	***	***	***	***
MT Metal	City Of Industry, CA	***	***	***	***	***
Nanshan	Lafayette, IN	***	***	***	***	***
Novelis	Atlanta, GA	***	***	***	***	***
Oak-Mitsui	Hoosick Falls, NY	***	***	***	***	***
Pierce	Franklin, MA	***	***	***	***	***
Ryerson	Chicago, IL	***	***	***	***	***
Samuel and Son	Ontario, Canada	***	***	***	***	***
SLP	Youngsville, NC	***	***	***	***	***
Ta Chen	Long Beach, CA	***	***	***	***	***
Tesla	Palo Alto, CA	***	***	***	***	***
Toyota Tsusho	Georgetown, KY	***	***	***	***	***
United Aluminum	North Haven, CT	***	***	***	***	***
Valeo	Troy, MI	***	***	***	***	***
Vulcan	Torrance, CA	***	***	***	***	***
Total		***	***	***	***	***

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

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of CAAS from China and all other sources. U.S. imports from China, by quantity, increased by 31.8 percent between 2015 and 2017, increasing by 2.3 percent in 2016 and by 28.9 percent in 2017, but were 27.2 percent lower in January-June 2018 compared with January-June 2017. U.S. imports from China, by value, increased by 31.5 percent between 2015 and 2017, declining by 11.2 percent in 2016 and then increasing by 48.1 percent in 2017, and were 17.9 percent lower in January-June 2018 compared with January-June 2017.

U.S. imports from nonsubject sources, by quantity, increased by 17.9 percent between 2015 and 2017, increasing by 4.0 percent in 2016 and by 13.4 percent in 2017, and were 24.0 percent higher in January-June 2018 compared with January-June 2017. U.S. imports from nonsubject sources, by value, increased by 13.2 percent between 2015 and 2017, declining by 5.3 percent in 2016 and then increasing by 19.6 percent in 2017, and were 42.1 percent higher in January-June 2018 compared with January-June 2017.

Average unit values of U.S. imports from China and nonsubject sources irregularly declined between 2015 and 2017 but were higher in January-June 2018 than in January-June 2017. Average unit values of U.S. imports from China were consistently below those of U.S. imports from nonsubject sources, ranging from $409 per short ton lower in 2017 to $582 per short ton lower in 2016.

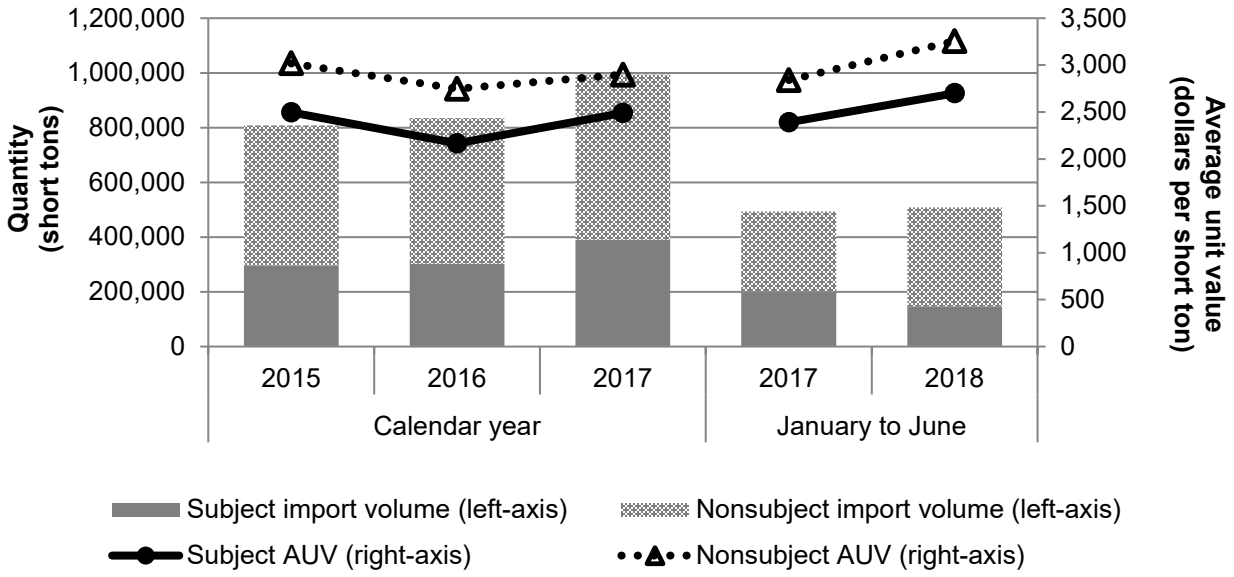
U.S. imports from China and nonsubject sources as a ratio to U.S. production increased by 7.2 and 7.0 percentage points, respectively, between 2015 and 2017, with the largest increase in 2017. In January-June 2018 compared to January-June 2017, these ratios were 8.4 percentage points lower for U.S. imports from China and 9.1 percentage points higher for U.S. imports from all other sources.

Table IV-2
CAAS: U.S. imports by source, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. imports from.--China	296,495	303,270	390,905	201,636	146,707
Nonsubject sources	511,084	531,436	602,629	292,096	362,197
All import sources	807,579	834,706	993,534	493,732	508,904
	Value (1,000 dollars)				
U.S. imports from.--China	739,731	656,865	972,825	482,141	396,033
Nonsubject sources	1,542,750	1,460,312	1,746,343	829,549	1,179,007
All import sources	2,282,481	2,117,177	2,719,168	1,311,690	1,575,041
	Unit value (dollars per short ton)				
U.S. imports from.--China	2,495	2,166	2,489	2,391	2,699
Nonsubject sources	3,019	2,748	2,898	2,840	3,255
All import sources	2,826	2,536	2,737	2,657	3,095
	Share of quantity (percent)				
U.S. imports from.--China	36.7	36.3	39.3	40.8	28.8
Nonsubject sources	63.3	63.7	60.7	59.2	71.2
All import sources	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from.--China	32.4	31.0	35.8	36.8	25.1
Nonsubject sources	67.6	69.0	64.2	63.2	74.9
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--China	22.4	22.3	29.6	29.3	20.9
Nonsubject sources	38.7	39.2	45.6	42.5	51.6
All import sources	61.1	61.5	75.2	71.8	72.5

Source: Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

Figure IV-1
CAAS: U.S. imports by source, 2015-17, January to June 2017, and January to June 2018



Source: Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018

Table IV-3 presents data for U.S. imports of CAAS from nonsubject countries. Canada was the largest nonsubject source of U.S. imports throughout the period, from a high of 20.8 percent of total U.S. imports in 2016 to a low of 16.6 percent in 2017.

Table IV-3
CAAS: Nonsubject U.S. imports, by source, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. imports from.--					
Canada	164,526	174,001	165,191	83,360	88,003
Indonesia	73,196	36,972	72,170	35,668	38,395
Bahrain	38,543	56,427	65,162	28,672	35,417
India	17,938	24,920	45,855	25,817	21,476
South Africa	30,922	44,597	33,947	18,493	19,795
Germany	60,461	54,929	32,998	17,535	14,952
France	8,435	16,146	29,116	10,119	19,075
Oman	181	5,749	27,798	10,552	28,954
All other nonsubject sources	116,883	117,694	130,392	61,881	96,129
All nonsubject sources	511,084	531,436	602,629	292,096	362,197
	Share of total U.S. imports (percent)				
U.S. imports from.--					
Canada	20.4	20.8	16.6	16.9	17.3
Indonesia	9.1	4.4	7.3	7.2	7.5
Bahrain	4.8	6.8	6.6	5.8	7.0
India	2.2	3.0	4.6	5.2	4.2
South Africa	3.8	5.3	3.4	3.7	3.9
Germany	7.5	6.6	3.3	3.6	2.9
France	1.0	1.9	2.9	2.0	3.7
Oman	0.02	0.69	2.80	2.14	5.69
All other nonsubject sources	14.5	14.1	13.1	12.5	18.9
All nonsubject sources	63.3	63.7	60.7	59.2	71.2

Source: Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

Monthly U.S. imports

Table IV-4 and figure IV-2 present data for monthly U.S. imports.

Table IV-4
CAAS: U.S. imports by month, January 2015 to September 2018

Item	U.S. imports				
	China	Canada	All other sources	Nonsubject sources	All import sources
	Quantity (short tons)				
2015.--January	30,504	12,578	35,016	47,594	78,098
February	28,130	11,558	29,343	40,901	69,032
March	33,571	13,819	31,600	45,419	78,990
April	29,744	12,544	31,219	43,763	73,506
May	28,415	13,089	27,685	40,775	69,190
June	29,144	14,954	27,032	41,987	71,131
July	25,516	12,729	31,971	44,700	70,216
August	19,924	15,150	25,895	41,045	60,969
September	15,967	15,533	27,794	43,327	59,294
October	17,397	15,400	27,875	43,275	60,672
November	15,328	15,630	26,045	41,675	57,003
December	22,855	11,541	25,082	36,623	59,478
2016.--January	20,776	15,125	27,323	42,448	63,225
February	22,632	13,872	23,677	37,549	60,181
March	21,601	16,924	29,469	46,394	67,995
April	23,965	14,534	33,173	47,707	71,672
May	31,711	15,641	30,572	46,213	77,925
June	30,572	13,283	30,599	43,883	74,455
July	28,323	13,913	34,536	48,449	76,772
August	26,288	15,160	29,717	44,877	71,165
September	23,474	13,835	28,211	42,046	65,520
October	24,611	16,397	28,945	45,342	69,953
November	26,580	14,046	29,264	43,310	69,890
December	22,736	11,271	31,947	43,218	65,953
2017.--January	22,695	13,429	35,740	49,168	71,864
February	20,483	13,170	32,261	45,431	65,914
March	31,700	13,662	37,993	51,656	83,356
April	36,427	13,026	33,900	46,926	83,353
May	50,248	15,817	38,472	54,289	104,537
June	40,083	14,256	30,371	44,626	84,709
July	42,465	13,818	39,686	53,504	95,969
August	36,755	15,049	35,942	50,991	87,746
September	26,753	13,264	31,716	44,980	71,733
October	24,750	14,681	40,806	55,487	80,237
November	25,832	13,300	43,572	56,871	82,704
December	32,713	11,719	36,980	48,699	81,413

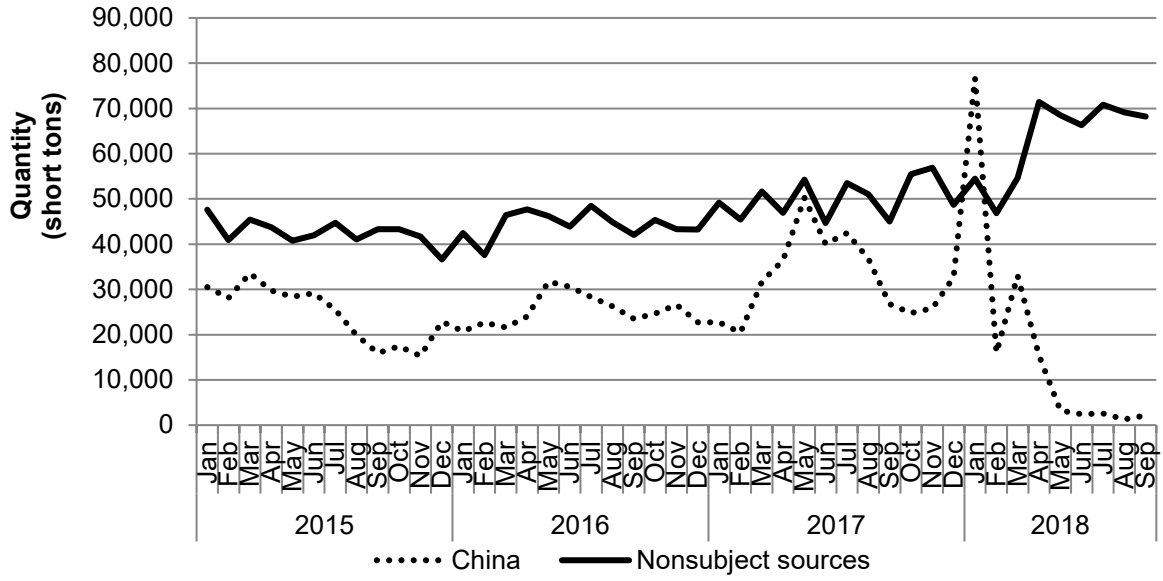
Table continued on next page.

Table IV-4--Continued
CAAS: U.S. imports by month, January 2015 to September 2018

Item	U.S. imports				
	China	Canada	All other sources	Nonsubject sources	All import sources
	Quantity (short tons)				
2018.-- January	76,634	16,018	38,427	54,445	131,079
February	16,004	14,770	32,097	46,867	62,871
March	33,083	15,352	39,296	54,647	87,730
April	15,364	16,445	54,981	71,425	86,789
May	3,231	13,947	54,543	68,490	71,721
June	2,391	11,472	54,850	66,322	68,713
July	2,537	11,994	58,817	70,811	73,348
August	1,273	11,030	58,098	69,129	70,402
September	2,111	10,472	57,764	68,236	70,347

Source: Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed November 6, 2018.

Figure IV-2
CAAS: Monthly U.S. imports, January 2015 to September 2018



Source: Compiled from official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed November 6, 2018.

U.S. importers' U.S. shipments by type

Table IV-5 presents data for U.S. importers' U.S. shipments by type. The majority of reported U.S. shipments of imports from China were non-clad 3XXX series and 5XXX series, while the majority of U.S. shipments of imports from all other sources were non-clad 5XXX series.[4]

Table IV-5
CAAS: U.S. importers' U.S. shipments by product type and source, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. importers' U.S. shipments: China--					
Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	127,171	123,917	152,470	81,761	67,534
Non-clad 5XXX series CAAS	130,650	129,617	160,598	83,868	68,164
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	264,154	262,341	325,060	171,054	138,920
	Value (1,000 dollars)				
U.S. importers' U.S. shipments: China--					
Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	316,415	285,268	389,219	203,391	194,493
Non-clad 5XXX series CAAS	358,207	312,366	424,381	219,641	228,474
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	695,351	627,416	853,317	441,163	434,945

Table continued on next page.

[4] Export shipments which were incorrectly included by *** were removed from the firm's reported U.S. shipments of ***.

Table IV-5--Continued
CAAS: U.S. importers' U.S. shipments by product type and source, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Unit value (dollars per short ton)				
U.S. importers' U.S. shipments: China-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	2,488	2,302	2,553	2,488	2,880
Non-clad 5XXX series CAAS	2,742	2,410	2,643	2,619	3,352
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	2,632	2,392	2,625	2,579	3,131
	Share of quantity (percent)				
U.S. importers' U.S. shipments: China-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	48.1	47.2	46.9	47.8	48.6
Non-clad 5XXX series CAAS	49.5	49.4	49.4	49.0	49.1
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	100.0	100.0	100.0	100.0	100.0
	Quantity (short tons)				
U.S. importers' U.S. shipments: Nonsubject sources.-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	77,186	106,809	149,003	69,059	63,786
Non-clad 5XXX series CAAS	272,167	302,024	321,229	162,260	159,298
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	407,207	476,372	534,338	263,623	258,740
	Value (1,000 dollars)				
U.S. importers' U.S. shipments: Nonsubject sources.-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	193,540	236,716	364,833	170,516	202,882
Non-clad 5XXX series CAAS	667,394	660,784	766,178	379,348	438,107
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	1,070,874	1,117,912	1,338,761	654,497	760,288

Table continued on next page.

Table IV-5--Continued
CAAS: U.S. importers' U.S. shipments by product type and source, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Unit value (dollars per short ton)				
U.S. importers' U.S. shipments: Nonsubject sources.-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	2,507	2,216	2,448	2,469	3,181
Non-clad 5XXX series CAAS	2,452	2,188	2,385	2,338	2,750
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	2,630	2,347	2,505	2,483	2,938
	Share of quantity (percent)				
U.S. importers' U.S. shipments: Nonsubject sources.-- Non-clad 1XXX series CAAS	***	***	***	***	***
Non-clad 3XXX series CAAS	19.0	22.4	27.9	26.2	24.7
Non-clad 5XXX series CAAS	66.8	63.4	60.1	61.6	61.6
Non-clad CAAS	***	***	***	***	***
Clad CAAS	***	***	***	***	***
Other products	***	***	***	***	***
All in-scope products	100.0	100.0	100.0	100.0	100.0

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

Table IV-6 presents data for U.S. imports by width. The majority of reported U.S. shipments of imports from China and from all other sources were other than extra wide CAAS. The average unit value of extra wide CAAS imports from China were lower than that of those from all other sources during January 2015-June 2018.

Table IV-7 presents data for U.S. imports by gauge. The majority of reported U.S. imports of CAAS from China and from nonsubject sources were of 0.292 mm to 6.3 mm.

Table IV-6
CAAS: U.S. importers' U.S. shipments of extra wide CAAS, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
Extra-wide CAAS: China.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than extra-wide CAAS: China.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: China.-- U.S. shipments (short tons)	264,153	262,341	325,060	171,053	138,919
U.S. shipments (1,000 dollars)	695,350	627,416	853,317	441,163	434,944
U.S. shipments (dollars per short ton)	$2,632	$2,392	$2,625	$2,579	$3,131
Extra-wide CAAS: Nonsubject sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than extra-wide CAAS: Nonsubject sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: Nonsubject sources.-- U.S. shipments (short tons)	407,207	476,372	534,338	263,623	258,740
U.S. shipments (1,000 dollars)	1,070,875	1,120,680	1,338,762	654,551	760,289
U.S. shipments (dollars per short ton)	$2,630	$2,353	$2,505	$2,483	$2,938
Extra-wide CAAS: All import sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than extra-wide CAAS: All import sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: All import sources.-- U.S. shipments (short tons)	671,360	738,713	859,398	434,676	397,659
U.S. shipments (1,000 dollars)	1,766,225	1,748,096	2,192,079	1,095,714	1,195,233
U.S. shipments (dollars per short ton)	$2,631	$2,366	$2,551	$2,521	$3,006

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

Table IV-7
CAAS: U.S. importers' U.S. shipments of 0.200 mm to 0.292 mm CAAS, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
0.200 mm to 0.292 mm CAAS: China.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS: China.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: China.-- U.S. shipments (short tons)	264,153	262,341	325,060	171,053	138,919
U.S. shipments (1,000 dollars)	695,350	627,416	853,317	441,163	434,944
U.S. shipments (dollars per short ton)	$2,632	$2,392	$2,625	$2,579	$3,131
0.200 mm to 0.292 mm CAAS: Nonsubject sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS: Nonsubject sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: Nonsubject sources.-- U.S. shipments (short tons)	407,207	476,372	534,338	263,623	258,740
U.S. shipment value	1,070,875	1,120,680	1,338,762	654,551	760,289
U.S. shipment unit value	$2,630	$2,353	$2,505	$2,483	$2,938
0.200 mm to 0.292 mm CAAS: All import sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
Other than 0.200 mm to 0.292 mm CAAS: All import sources.-- U.S. shipments (short tons)	***	***	***	***	***
U.S. shipments (1,000 dollars)	***	***	***	***	***
U.S. shipments (dollars per short ton)	***	***	***	***	***
All in-scope CAAS: All import sources.-- U.S. shipments (short tons)	671,360	738,713	859,398	434,676	397,659
U.S. shipments (1,000 dollars)	1,766,225	1,748,096	2,192,079	1,095,714	1,195,233
U.S. shipments (dollars per short ton)	$2,631	$2,366	$2,551	$2,521	$3,006

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

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[5] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[6] Imports from China accounted for 38.1 percent of total imports of CAAS by quantity during November 2016-October 2017, the twelve months prior to Commerce's initiation of these investigations. Imports from China accounted for 38.9 percent of total imports of CAAS by quantity during December 2016-November 2017, the twelve months prior to when the Commission deemed the notification of investigations having been filed.

CRITICAL CIRCUMSTANCES

Countervailing duty

On April 23, 2018, Commerce issued its preliminary countervailing duty determination and on November 15, 2018 continued to find in its final determination that that "critical circumstances" exist with regard to imports from China of CAAS from China for Chalco Ruimin Co., Ltd.; Chalco-SWA Cold Rolling Co., Ltd., and all other exporters or producers not individually examined.[7] In addition, Commerce determined that critical circumstances do not

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[5] 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)).

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

[7] *Common Alloy Aluminum Sheet From the People's Republic of China: Preliminary Affirmative Countervailing Duty (CVD) Determination, Alignment of Final CVD Determination With Final Antidumping Duty Determination, and Preliminary CVD Determination of Critical Circumstances*, 83 FR 17651, April 23, 2018. *Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*, 83 FR 57427, November 15, 2018. When the domestic interested party files timely allegations of critical circumstances in CVD investigations, Commerce examines whether there is a reasonable basis to believe or suspect that (1) "the alleged countervailable subsidy" is inconsistent with the Agreement on Subsidies and Countervailing Measures (SCM Agreement) of the World Trade Organization, and (2) that "there have been massive imports of the subject merchandise over a relatively short period."

exist with respect to Yong Jie New Material Co., Ltd.; Henan Mingtai Industrial Co., Ltd.; and Zhengzhou Mingtai Industry Co., Ltd.[8]

Figure IV-3 and table IV-8 (presented in conjunction with the section on the antidumping duty investigation) present monthly imports of CAAS from the producers in China that received affirmative final countervailing duty critical circumstances determinations, for the thirteen months spanning June 2017 to June 2018.

Figure IV-3
CAAS: U.S. imports from Chinese firms subject to Commerce's final CVD critical circumstance findings, by month, June 2017 to June 2018

* * * * * * *

Antidumping duty

On June 22, 2018, Commerce issued its preliminary antidumping duty determination and on November 15, 2018 continued to find in its final determination that "critical circumstances" exist with regard to imports from China of CAAS from China for Nanjie Resources Co., Limited (Nanjie), Yong Jie New Material Co., Ltd. (Yong Jie New Material), and Zhejiang Yongjie Aluminum Co., Ltd. (Yongjie Aluminum) (collectively, Yongjie Companies); Zhejiang GKO Aluminium Stock Co., Ltd. (GKO Aluminium); the companies eligible for a separate rate; and the China-wide entity. In addition, Commerce determined that critical circumstances do not exist for Henan Mingtai Al Industrial Co., Ltd. (Henan Mingtai) and Zhengzhou Mingtai Industry Co., Ltd. (Zhengzhou Mingtai) (collectively, Mingtai).[9]

Figure IV-4 presents monthly imports of CAAS from the producers in China that received affirmative final antidumping duty critical circumstances determinations, for the thirteen months spanning June 2017 to June 2018.

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[8] Yong Jie New Material Co., Ltd is part of the Yongjie Companies, which also includes Zhejiang Yongjie Aluminum Co., Ltd, and exporters Zhejiang Nanjie Industry Co., Ltd. and Nanjie Resources Co., Ltd.

[9] *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Preliminary Determination of Sales at Less-Than-Fair Value, Preliminary Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*, 83 FR 29088, June 22, 2018. *Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value*, 83 FR 57421, November 15, 2018. When the domestic interested party file timely allegations of critical circumstances in AD investigations, Commerce examines whether there is a reasonable basis to believe or suspect that (1) there is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise, or the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the subject merchandise at less than its fair value and that there was likely to be material injury by reason of such sales, and (B) there have been massive imports of the subject merchandise over a relatively short period.

Figure IV-4
CAAS: U.S. imports from Chinese firms subject to Commerce's final AD critical circumstance findings, by month, June 2017 to June 2018

* * * * * * *

Table IV-8 presents monthly imports of CAAS from the producers in China that received affirmative final countervailing duty and antidumping duty critical circumstances determinations, for the thirteen months spanning June 2017 to June 2018.

Table IV-8
CAAS: U.S. imports from Chinese firms subject to Commerce's AD and CVD critical circumstance findings, by month, June 2017 to June 2018

Period	Antidumping duty	Countervailing duty
	Quantity (short tons)	
2017.--June	***	***
July	***	***
August	***	***
September	***	***
October	***	***
November	***	***
December	***	***
2018.--January	***	***
February	***	***
March	***	***
April	***	***
May	***	***
June	***	***

Note.--Imports subject to Commerce's final AD critical circumstances findings relate to imports from all Chinese firms except Henan Mingtai Industrial Co., Ltd., and Zhengzhou Mingtai Industry Co., Ltd.
Note.--Imports subject to Commerce's final CVD critical circumstances findings relate to imports from Chinese firms except Yong Jie New Material Co., Ltd.; Henan Mingtai Industial Co., Ltd.; and Zhengzhou Mingtai Industry Co., Ltd.

Source: Compiled from proprietary records using import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed October 31, 2018.

APPARENT U.S. CONSUMPTION

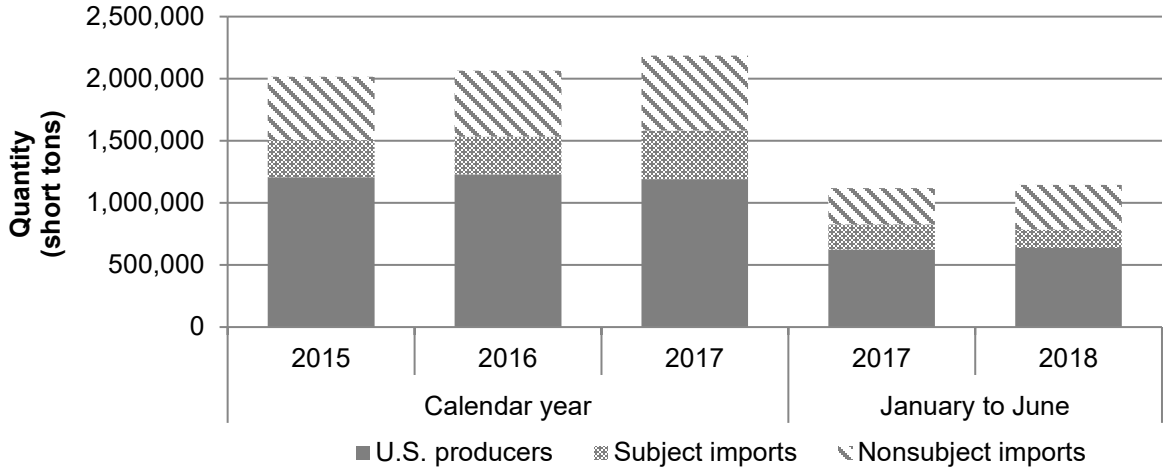
Table IV-9 and figure IV-5 presents data on apparent U.S. consumption and U.S. market shares for CAAS. Apparent U.S. consumption, by quantity, increased by 2.5 percent between 2015 and 2016, and then increased by 5.8 percent in 2017, and was 2.4 percent higher in January-June 2018 compared with January-June 2017. Apparent U.S. consumption, by value, declined by 5.9 percent between 2015 and 2016, and increased by 18.5 percent in 2017, and was 17.5 percent higher in January-June 2018 compared with January-June 2017.

Table IV-9
CAAS: U.S. shipments of domestic product, U.S. imports, and apparent U.S. consumption, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
U.S. producers' U.S. shipments	1,207,766	1,230,301	1,191,255	624,992	636,803
U.S. imports from.--					
China	296,495	303,270	390,905	201,636	146,707
Nonsubject sources	511,084	531,436	602,629	292,096	362,197
All import sources	807,579	834,706	993,534	493,732	508,904
Apparent U.S. consumption	2,015,345	2,065,007	2,184,789	1,118,724	1,145,707
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064
U.S. imports from.--					
China	739,731	656,865	972,825	482,141	396,033
Nonsubject sources	1,542,750	1,460,312	1,746,343	829,549	1,179,007
All import sources	2,282,481	2,117,177	2,719,168	1,311,690	1,575,041
Apparent U.S. consumption	5,534,113	5,205,480	6,169,209	3,084,040	3,624,105

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

Figure IV-5
CAAS: Apparent U.S. consumption, 2015-17, January to June 2017, and January to June 2018



Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

U.S. MARKET SHARES

U.S. market share data are presented in table IV-10. U.S. producers' share of apparent U.S. consumption, by quantity, declined by 0.3 percentage points in 2016 and by 5.1 percentage points in 2017 and was 0.3 percentage points lower in January-June 2018 compared with January-June 2017. The share of U.S. imports from China remained the same in 2016 as it was in 2015 but increased by 3.2 percentage points in 2017, while the share of U.S. imports from nonsubject sources also increased by 0.4 percentage points in 2016 and by 1.9 percentage points in 2017. The market share of imports from China was 5.2 percentage points lower in January-June 2018 compared with January-June 2017, but the market share was 5.5 percentage points higher for imports from nonsubject sources.

Table IV-10
CAAS: U.S. consumption and market shares, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
Apparent U.S. consumption	2,015,345	2,065,007	2,184,789	1,118,724	1,145,707
	Share of quantity (percent)				
U.S. producers' U.S. shipments	59.9	59.6	54.5	55.9	55.6
U.S. imports from.--					
China	14.7	14.7	17.9	18.0	12.8
Nonsubject sources	25.4	25.7	27.6	26.1	31.6
All import sources	40.1	40.4	45.5	44.1	44.4
	Value (1,000 dollars)				
Apparent U.S. consumption	5,534,113	5,205,480	6,169,209	3,084,040	3,624,105
	Share of value (percent)				
U.S. producers' U.S. shipments	58.8	59.3	55.9	57.5	56.5
U.S. imports from.--					
China	13.4	12.6	15.8	15.6	10.9
Nonsubject sources	27.9	28.1	28.3	26.9	32.5
All import sources	41.2	40.7	44.1	42.5	43.5

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

The primary raw materials used to manufacture CAAS are primary aluminum and aluminum sheet scrap. Raw materials accounted for approximately two-thirds of the cost of goods sold ("COGS") for CAAS in 2017.

The vast majority of responding U.S. producers (8 of 10) reported that raw material prices had fluctuated, while the majority of importers and purchasers reported that raw material prices increased since 2015. The London Metal Exchange ("LME") plus the Midwest price premium were the two most commonly reported sources for aluminum prices in the United States. As seen in figure V-1, the LME price of high grade aluminum has fluctuated since 2015, decreasing by *** percent from January 2015 to November 2015, increasing by *** percent from November 2015 to May 2018, and decreasing by *** percent from May 2018 to September 2018.

The Midwest premium is a daily premium to the LME price applicable to U.S. producers of unwrought aluminum.[1] [2] Traditionally, the Midwest premium has been less than 10 cents per pound, but in 2014-15 the premium increased to a historic high of more than 24 cents per pound.[3] During this period, industry sources reported that aluminum end users believed that the "aggressive queue-management schemes of LME warehouse operators" were the root cause of the higher Midwest premium prices. However, aluminum producers and warehouses stated the increases were in part due to decreasing U.S. smelting capacity and increased demand in financing or investing in aluminum.[4] Since the beginning of 2018, the Midwest Premium has been "skyrocketing" as a result of ongoing uncertainty in the aluminum market.[5] As seen in figure V-1, the LME plus Midwest premium price for aluminum has fluctuated since 2015, decreasing *** percent from January 2015 to November 2015, increasing by *** percent

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[1] The Midwest premium is based on physical spot deals, bids, and offers reported through a daily survey of spot buyers and sellers, and uses a representative sample of producers, traders, and different types of end users. It reflects both deliveries to a typical freight consumer in a broad U.S. Midwest region via truck or rail as well as the transaction costs. Source: S & P Global Platts, *Methodology and Specifications Guide: Nonferrous*, April 2017.

[2] The Midwest premium price of aluminum decreased *** percent from January 2015 to October 2015, increased by *** percent from October 2015 to May 2018, and decreased by *** percent from May 2018 to August 2018. Source: Platts Metals Week Price Notification Monthly Reports.

[3] Aluminum Foil Conference Transcript, pp. 110-111 (Casey).

[4] Reuters, *Aluminum Premiums Adjust to Life After the Queues*, June 15, 2016.

[5] Metal Miner, *Aluminum MMI: U.S. Midwest Premium Falls for Second Straight Month*, September 11, 2018. Metal Miner points to the recent Mexican antidumping probe on Chinese aluminum foil, falling Japanese aluminum premium offers, tariffs, sanctions, and supply concerns as reasons for the increase in prices.

from November 2015 to May 2018, and decreasing by *** percent from May 2018 to September 2018.

Figure V-1
Aluminum price indices: LME (High Grade) and LME plus Midwest premium price index of aluminum, monthly, January 2015-September 2018

* * * * * * *

The vast majority of purchasers (28 of 33) reported that prices are being indexed to raw material costs, but all responding purchasers stated that raw material costs do not affect CAAS negotiations. Most purchasers reported using the LME plus Midwest premium from one to two months prior for indexing prices. Other indices reported were the Shanghai Futures Exchange, MJP Premium, and Metal Bulletin European Premium.

Old aluminum sheet scrap (scrap from recycled products such as used beverage cans or from recycled sheet) is also used as a raw material input in the production of CAAS. The price of old aluminum sheet scrap fluctuated between January 2015 and August 2018. As seen in figure V-2, the price of old aluminum sheet scrap decreased by *** percent from January 2015 to December 2015, increased by *** percent from December 2015 to June 2018, and decreased by *** from June 2018 to September 2018.

Figure V-2
Old aluminum sheet scrap: Aluminum sheet scrap prices, monthly, January 2015-September 2018

* * * * * * *

Transportation costs to the U.S. market

Transportation costs for CAAS shipped from China to the United States averaged 4.8 percent during 2017. These estimates were derived from official import data and represent transportation and other charges on imports.[6]

U.S. inland transportation costs

Virtually all responding U.S. producers (10 of 10) and importers (33 of 35) reported that they typically arrange transportation to their customers. Most U.S. producers reported that their U.S. inland transportation costs ranged from 2 to 6 percent, while most importers reported costs of 2 to 5 percent.

[6] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2017 and then dividing by the customs value based on the HTS subheading 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080.

PRICING PRACTICES

Pricing structure

The price of U.S.-produced CAAS reportedly consists of three components: the LME price for high-grade ("HG") unwrought aluminum, the Midwest premium, and the fabrication or conversion price.[7] Prices of imported CAAS do not include the Midwest premium.[8] U.S. producer Constellium stated that pricing is set daily based on the publicly available LME price.[9] As seen in table V-1, U.S. producers' conversion prices averaged approximately *** per pound during 2015-16 and *** cents per pound during 2017 and the first half of 2018, and ranged from ***. Five of the nine responding U.S. producers reported decreasing conversion prices between 2015 to 2017. U.S. producers stated that the range of reported conversion prices relates to the different product mixes of each U.S. producer, specifically relating to wide-width products and clad CAAS producers, both of which have higher conversion prices.[10]

Table V-1
CAAS: U.S. producers' responses to conversion prices, 2015-17, January to June 2017, and January to June 2018

Item	Fiscal year			January to June	
	2015	2016	2017	2017	2018
	Dollars per pound				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Reynolds	***	***	***	***	***
Skana	***	***	***	***	***
Min	0.12	0.12	0.13	0.13	0.14
Max	0.79	0.78	0.76	0.76	0.77
Average	0.50	0.50	0.48	0.48	0.49

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

[7] Conference transcript, p. 84 (McCarter).
[8] Conference transcript, p. 116 (Mowry).
[9] Hearing transcript, p. 120 (Stemple).
[10] Domestic Industry posthearing brief, pp. 80-81.

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists, while importers reported also using other methods such as set web pricing and fixed forward pricing. As presented in table V-2, U.S. producers and importers both sell primarily through transaction-by-transaction negotiations and contracts.

Table V-2
CAAS: U.S. producers' and importers' reported price setting methods, by number of responding firms[1]

Method	U.S. producers	Importers
Transaction-by-transaction	9	31
Contract	10	27
Set price list	3	9
Other	---	6
Responding firms	10	43

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

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

U.S. producers reported selling the majority of CAAS via annual contracts while importers sold *** of their product on the spot market during 2017 (table V-3).

Table V-3
CAAS: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2017

* * * * * * *

Most responding U.S. producers reported short-term contracts lasting between 30 and 180 days and long-term contracts with durations of about 2 years. Of the 15 responding importers, 13 reported short-term contracts with durations between 90 to 180 days. Most responding importers reported long-term contracts with durations of approximately 3 years. Most U.S. producers and importers reported that their contracts fixed price and quantity, and do not include price negotiation or meet-and-release provisions. The vast majority of responding purchasers (30 of 34) reported purchases involving negotiations. Purchasers reported negotiating on price, credit terms, delivery and lead times, volumes, and product specifications.

Fourteen purchasers reported that they purchase product daily, 9 purchase weekly, 9 purchase monthly, 3 purchase quarterly, and 1 purchases annually. Twenty-seven of 34 responding purchasers reported that their purchasing frequency had not changed since 2015. Most (29 of 32) purchasers contact 1 to 6 suppliers before making a purchase.

Sales terms and discounts

Most U.S. producers and importers typically quote prices on a delivered basis. U.S. producers offer quantity and total volume discounts, and importers offer quantity and total volume discounts.[11] The vast majority of U.S. producers (9 of 10) and importers (25 of 34) reported sales terms of net 30 days.[12]

Price leadership

Most purchasers reported that Aleris, Arconic, Constellium, and Novelis were price leaders.

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 CAAS products shipped to unrelated U.S. customers during January 2015 through June 2018.

Product 1.-- Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide.
Product 2.-- Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide.
Product 3.-- Alloy 5052, H-32 temper, 0.125 inch thickness, 48 inches wide.
Product 4.-- Alloy 5052, H-32 temper, 0.125 inch thickness, 60 inches wide.
Product 5.-- Alloy 3003, H-14 temper, 0.090 inch thickness, 48 inches wide.
Product 6.-- Alloy 3003, H-14 temper, 0.125 inch thickness, 48 inches wide.
Product 7.-- Alloy 3003, H-14 temper, 0.125 inch thickness, 60 inches wide.
Product 8.-- Alloy 3003 modified, 4343 5% one side clad, O temper, 0.063 inch thickness, 24 inches wide.

Five U.S. producers and 13 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters. [13] Pricing data reported by these firms accounted for approximately 2.2 percent of U.S. producers'

[11] The majority of importers (28 of 43) do not offer discounts.

[12] One U.S. producer and seven importers reported sales terms of net 60 days.

[13] No importers reported pricing data for Product 8. ***, an importer of brazing stock, stated, "Product 8 describes a unique brazing sheet material combination from the variety of clad materials available and used in the market place. Alloy 3003 modified (CORE ALLOY), 4343 5% one side clad (CLAD ALLOY), 0 temper, 0.063 inch thickness, 24 inches wide. The brazing product imported form our Chinese and Swedish mills cover a thickness range of .22mm to 3.5mm with multiple variations of CORE ALLOYS and CLAD ALLOYS. To complicate matters, the % cladding varies from 5% up to 17% and material are often clad on two sides with same cladding alloy or with different cladding alloys on each side. The width of the material we import also varies from 16mm up to 900mm."

U.S. commercial shipments of CAAS and 21.8 percent of U.S. commercial shipments of CAAS from China in 2017.

Price data for products 1-8 are presented in tables V-4 to V-11 and figures V-3 to V-10. [14] Nonsubject country prices are presented in Appendix F.

Table V-4
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 1[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.50	2,175,815	1.32	5,577,078	12.3
Apr.-June	1.42	2,146,691	1.30	6,042,480	8.8
July-Sept.	1.25	2,135,010	1.25	5,349,747	(0.1)
Oct.-Dec.	1.20	2,270,201	1.21	3,412,749	(0.9)
2016:					
Jan.-Mar.	1.21	3,385,031	1.15	3,672,740	4.8
Apr.-June	1.22	2,428,889	1.11	3,899,616	8.5
July-Sept.	1.22	2,945,275	1.13	4,365,076	7.6
Oct.-Dec.	1.24	1,743,876	1.13	4,066,316	9.2
2017:					
Jan.-Mar.	1.30	1,906,933	1.17	5,178,202	10.0
Apr.-June	1.39	1,984,388	1.23	4,936,451	11.9
July-Sept.	1.39	1,813,039	1.24	5,890,802	11.0
Oct.-Dec.	1.48	1,529,988	1.36	4,509,649	8.2
2018:					
Jan.-Mar.	1.55	2,125,098	1.43	6,408,508	7.8
Apr.-June	1.63	1,975,004	1.70	2,555,846	(4.3)

[1] Product 1: Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide.

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

[14] 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-5
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 2[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.52	1,705,128	1.33	4,335,262	12.0
Apr.-June	1.45	2,044,402	1.31	4,258,652	9.8
July-Sept.	1.28	1,835,047	1.25	4,742,056	2.3
Oct.-Dec.	1.21	2,386,441	1.21	2,745,721	(0.2)
2016:					
Jan.-Mar.	1.21	2,586,887	1.15	3,813,439	4.6
Apr.-June	1.23	2,207,840	1.12	3,670,772	8.7
July-Sept.	1.24	2,054,220	1.13	4,041,133	8.8
Oct.-Dec.	1.25	1,429,577	1.14	2,936,932	9.0
2017:					
Jan.-Mar.	1.31	2,047,719	1.18	4,048,376	9.3
Apr.-June	1.40	2,190,236	1.23	4,006,605	12.6
July-Sept.	1.39	1,757,259	1.25	3,943,110	10.1
Oct.-Dec.	1.47	1,481,974	1.35	3,625,869	8.2
2018:					
Jan.-Mar.	1.50	1,812,387	1.50	3,563,110	0.4
Apr.-June	1.64	1,306,059	1.78	2,018,823	(8.6)

[1] Product 2: Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide.

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

Table V-6
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 3[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.56	3,357,812	1.32	8,921,437	15.2
Apr.-June	1.44	3,247,838	1.30	10,011,413	10.3
July-Sept.	1.30	4,286,210	1.25	9,777,398	3.8
Oct.-Dec.	1.24	3,397,754	1.21	7,579,590	2.6
2016:					
Jan.-Mar.	1.24	4,455,537	1.15	8,164,586	6.8
Apr.-June	1.22	3,950,802	1.12	8,950,197	8.4
July-Sept.	1.25	3,907,345	1.14	9,080,204	8.7
Oct.-Dec.	1.27	3,325,962	1.16	6,453,624	8.8
2017:					
Jan.-Mar.	1.35	3,706,395	1.29	7,906,093	4.5
Apr.-June	1.41	3,740,618	1.21	9,935,384	14.4
July-Sept.	1.39	2,944,668	1.23	11,436,109	11.3
Oct.-Dec.	1.49	2,673,943	1.33	7,978,060	10.2
2018:					
Jan.-Mar.	1.54	3,184,371	1.41	10,441,756	8.4
Apr.-June	1.66	3,504,275	1.75	4,347,916	(4.9)

[1] Product 3: Alloy 5052, H-32 temper, 0.125 inch thickness, 48 inches wide.

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

Table V-7
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 4[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.51	4,308,669	1.34	4,975,783	11.1
Apr.-June	1.45	3,455,502	1.31	5,330,118	9.2
July-Sept.	1.30	3,874,437	1.26	6,009,398	2.5
Oct.-Dec.	1.23	3,345,990	1.24	4,191,474	(0.6)
2016:					
Jan.-Mar.	1.22	3,891,455	1.14	5,115,185	6.5
Apr.-June	1.25	3,632,530	1.12	5,415,106	9.8
July-Sept.	1.24	3,924,578	1.13	5,639,489	9.2
Oct.-Dec.	1.23	3,090,394	1.14	4,504,697	7.5
2017:					
Jan.-Mar.	1.33	3,578,020	1.19	5,002,231	10.1
Apr.-June	1.39	3,857,585	1.22	6,036,530	12.0
July-Sept.	1.38	3,264,002	1.24	6,416,493	10.7
Oct.-Dec.	1.48	3,197,202	1.34	5,556,483	9.8
2018:					
Jan.-Mar.	1.52	3,270,074	1.45	6,262,434	5.0
Apr.-June	1.64	3,234,656	1.84	2,521,435	(12.3)

[1] Product 4: Alloy 5052, H-32 temper, 0.125 inch thickness, 60 inches wide.

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

Table V-8
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 5[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.52	636,325	1.26	1,771,939	16.9
Apr.-June	1.38	559,661	1.27	1,578,341	7.6
July-Sept.	1.17	574,746	1.19	1,740,583	(2.3)
Oct.-Dec.	1.17	679,145	1.16	1,099,359	0.3
2016:					
Jan.-Mar.	1.15	766,532	1.11	1,565,885	4.0
Apr.-June	1.12	508,388	1.08	1,680,892	2.8
July-Sept.	1.18	547,693	1.10	1,512,751	7.2
Oct.-Dec.	1.19	590,731	1.11	1,184,271	7.2
2017:					
Jan.-Mar.	1.28	427,865	1.19	1,527,358	7.5
Apr.-June	1.37	493,262	1.18	1,790,265	13.7
July-Sept.	1.35	543,963	1.21	1,797,484	10.5
Oct.-Dec.	1.38	480,985	1.30	1,511,416	5.2
2018:					
Jan.-Mar.	1.52	653,350	1.38	1,753,584	8.8
Apr.-June	1.59	368,162	1.64	1,177,718	(3.7)

[1] Product 5: Alloy 3003, H-14 temper, 0.090 inch thickness, 48 inches wide.

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

Table V-9
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 6[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.47	671,494	1.30	5,787,835	11.4
Apr.-June	1.35	826,711	1.28	5,368,301	4.8
July-Sept.	1.21	1,062,417	1.22	6,179,609	(0.8)
Oct.-Dec.	1.15	934,174	1.19	5,140,254	(3.1)
2016:					
Jan.-Mar.	1.15	1,244,674	1.15	5,469,750	(0.2)
Apr.-June	1.18	1,495,951	1.10	6,387,539	6.2
July-Sept.	1.17	1,113,027	1.12	5,231,151	4.3
Oct.-Dec.	1.20	1,061,191	1.16	4,660,988	3.3
2017:					
Jan.-Mar.	1.28	1,137,095	1.23	4,509,390	4.4
Apr.-June	1.34	1,103,328	1.26	5,244,809	6.5
July-Sept.	1.34	814,133	1.26	6,121,495	5.9
Oct.-Dec.	1.42	737,136	1.36	5,985,230	4.2
2018:					
Jan.-Mar.	1.47	854,228	1.47	6,482,832	0.2
Apr.-June	1.59	1,013,483	1.45	4,647,572	8.7

[1] Product 6: Alloy 3003, H-14 temper, 0.125 inch thickness, 48 inches wide.

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

Table V-10
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 7[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	1.48	567,743	1.28	3,597,593	13.3
Apr.-June	1.34	1,021,805	1.27	3,371,919	5.0
July-Sept.	1.20	714,105	1.20	3,301,670	(0.5)
Oct.-Dec.	1.17	715,630	1.18	2,834,780	(0.6)
2016:					
Jan.-Mar.	1.14	1,057,179	1.13	3,499,879	1.2
Apr.-June	1.17	1,103,163	1.08	3,534,440	7.9
July-Sept.	1.17	1,126,091	1.10	3,545,898	6.2
Oct.-Dec.	1.19	883,307	1.13	2,438,885	5.4
2017:					
Jan.-Mar.	1.29	1,024,118	1.21	3,099,893	6.2
Apr.-June	1.37	767,409	1.25	3,335,244	8.9
July-Sept.	1.35	562,938	1.27	3,766,561	5.9
Oct.-Dec.	1.44	545,801	1.36	4,198,859	5.7
2018:					
Jan.-Mar.	1.49	940,922	1.47	5,032,562	1.5
Apr.-June	1.59	673,232	1.90	2,771,874	(19.3)

[1] Product 7: Alloy 3003, H-14 temper, 0.125 inch thickness, 60 inches wide.

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

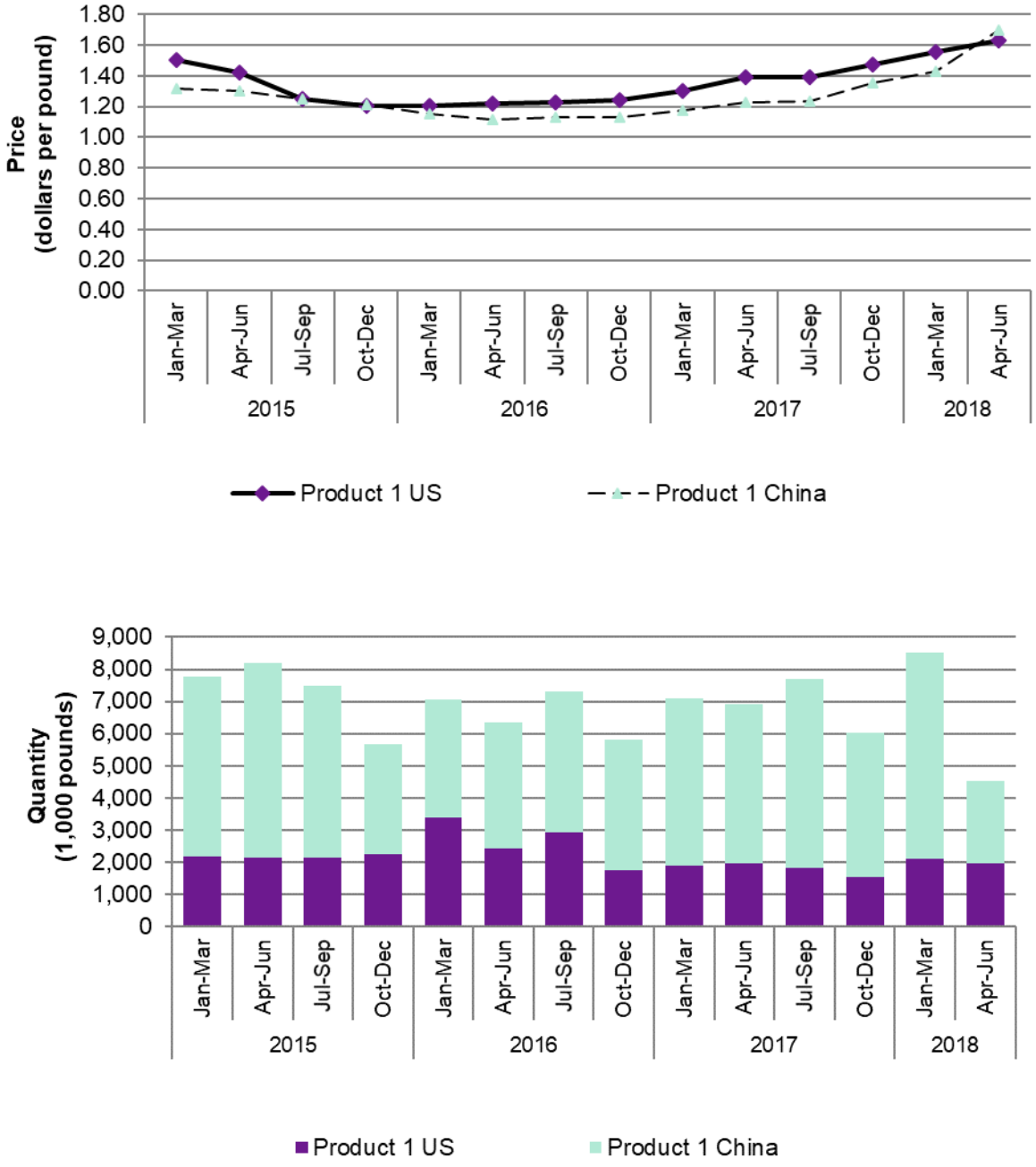
Table V-11
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 8[1] and margins of underselling/(overselling), by quarter, January 2015 through June 2018

Period	United States		China		
	Price (per pound)	Quantity (pounds)	Price (per pound)	Quantity (pounds)	Margin (percent)
2015:					
Jan.-Mar.	2.01	130,393	---	0	---
Apr.-June	1.93	212,138	---	0	---
July-Sept.	1.80	147,119	---	0	---
Oct.-Dec.	1.76	86,837	---	0	---
2016:					
Jan.-Mar.	1.75	77,617	---	0	---
Apr.-June	1.73	118,869	---	0	---
July-Sept.	1.79	90,940	---	0	---
Oct.-Dec.	1.80	95,513	---	0	---
2017:					
Jan.-Mar.	1.91	44,146	---	0	---
Apr.-June	1.93	52,314	---	0	---
July-Sept.	1.92	118,191	---	0	---
Oct.-Dec.	2.01	31,481	---	0	---
2018:					
Jan.-Mar.	2.05	106,582	---	0	---
Apr.-June	2.15	91,655	---	0	---

[1] Product 8: Alloy 3003 modified, 4343 5% one side clad, O temper, 0.063 inch thickness, 24 inches wide.

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

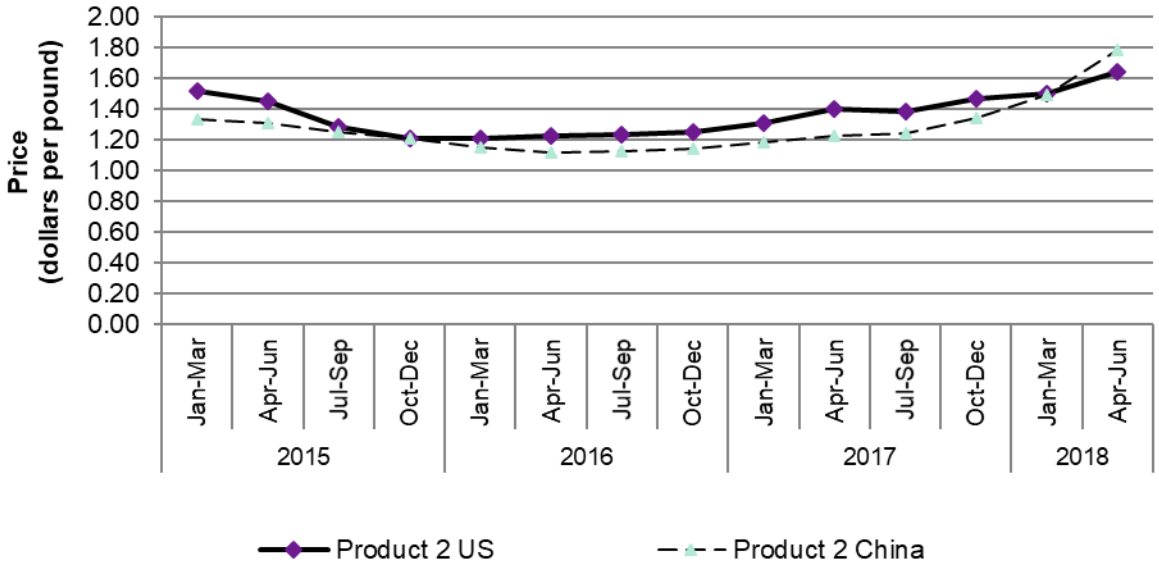
Figure V-3
CAAS: Weighted-average prices and quantities of domestic and imported product 1, by quarter, January 2015 through June 2018

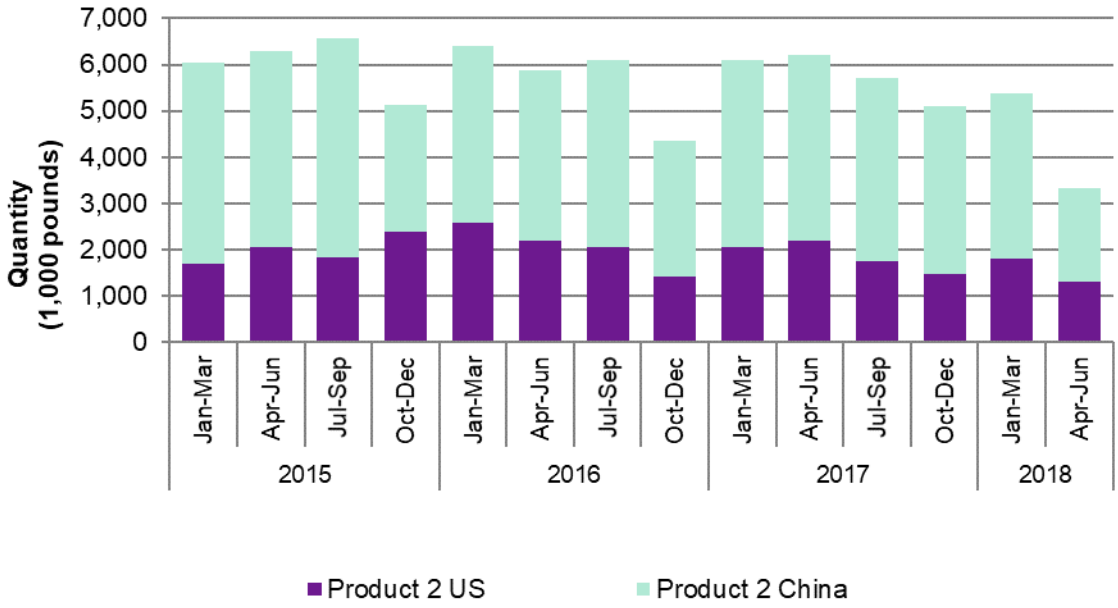


Product 1: Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide.

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

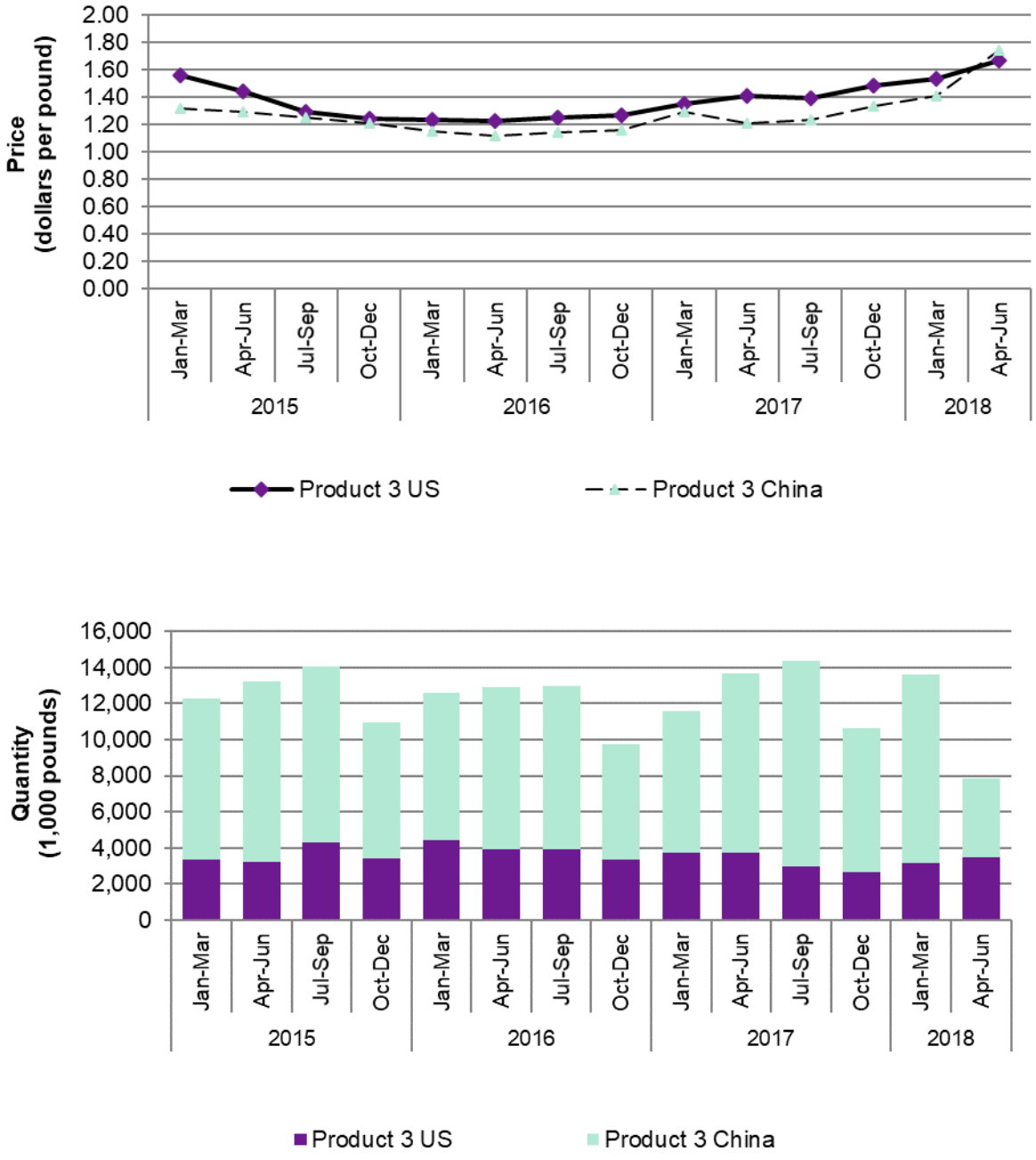
Figure V-4
CAAS: Weighted-average prices and quantities of domestic and imported product 2, by quarter, January 2015 through June 2018





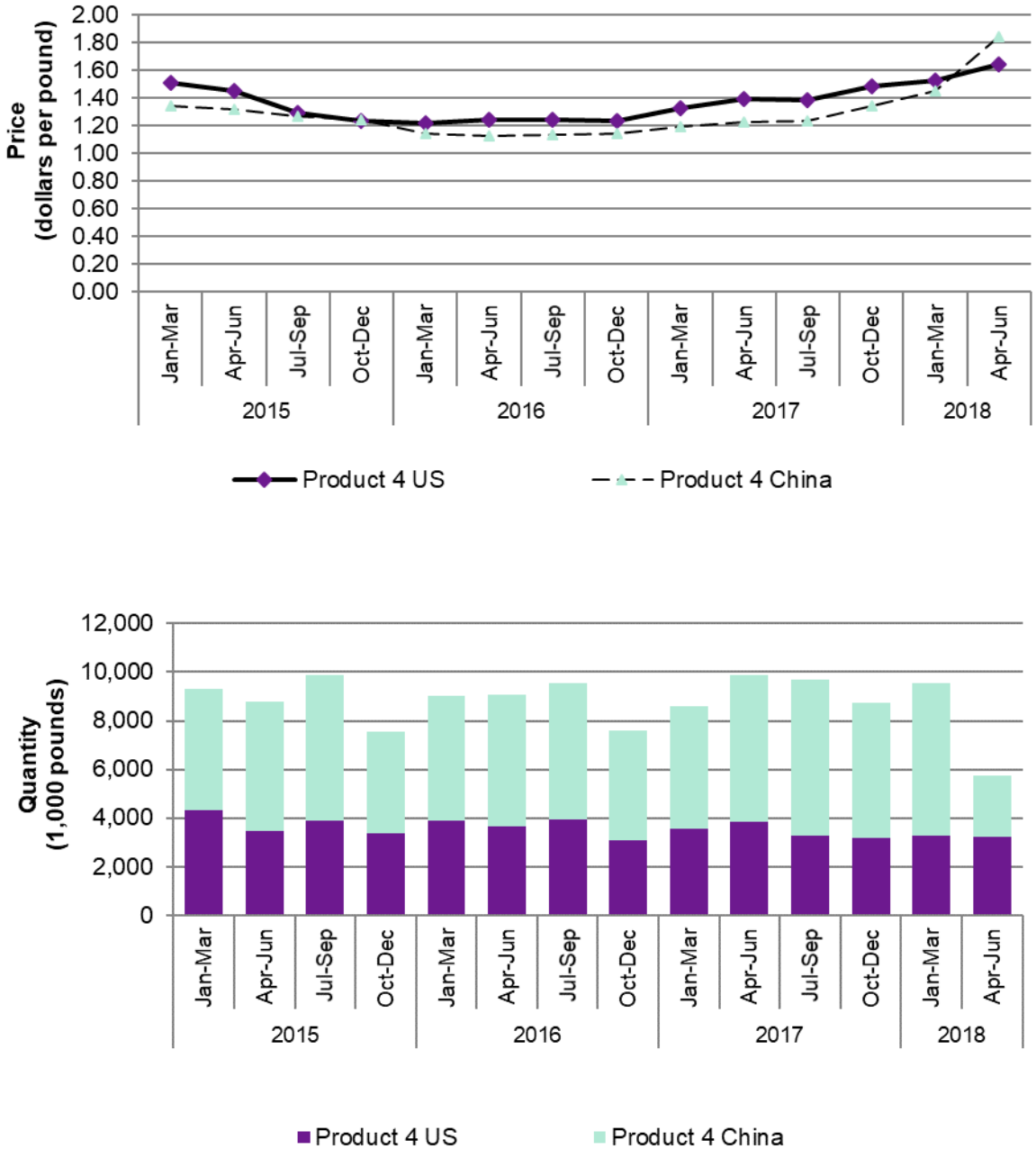
Product 2: Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

Figure V-5
CAAS: Weighted-average prices and quantities of domestic and imported product 3, by quarter, January 2015 through June 2018



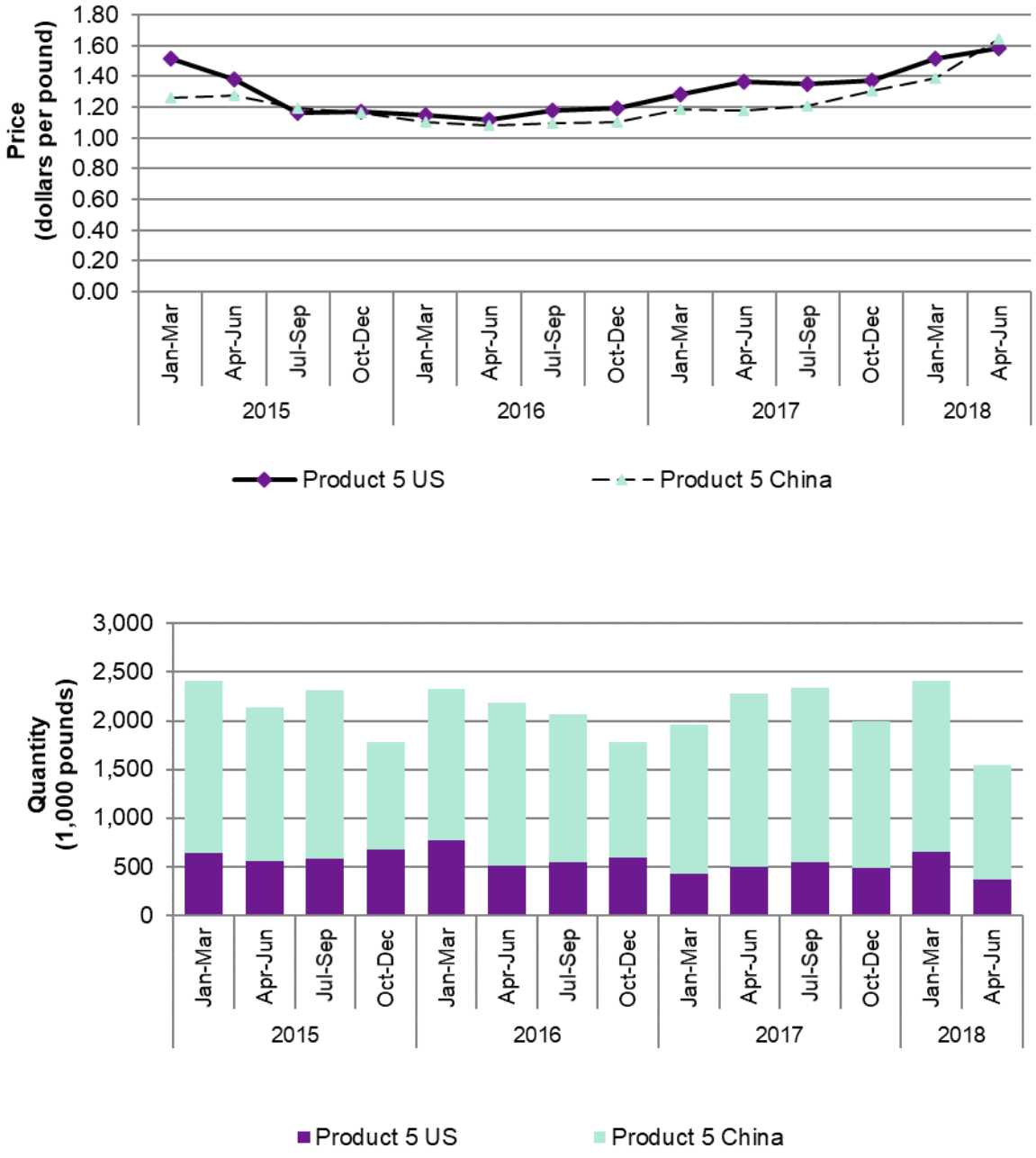
Product 3: Alloy 5052, H-32 temper, 0.125 inch thickness, 48 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

Figure V-6
CAAS: Weighted-average prices and quantities of domestic and imported product 4, by quarter, January 2015 through June 2018



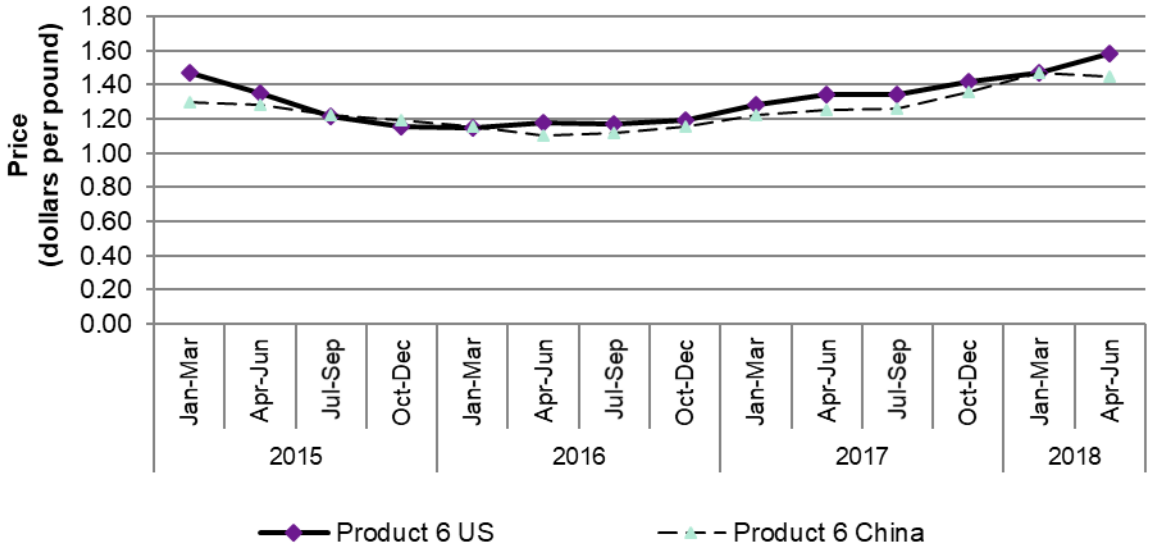
Product 4: Alloy 5052, H-32 temper, 0.125 inch thickness, 60 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

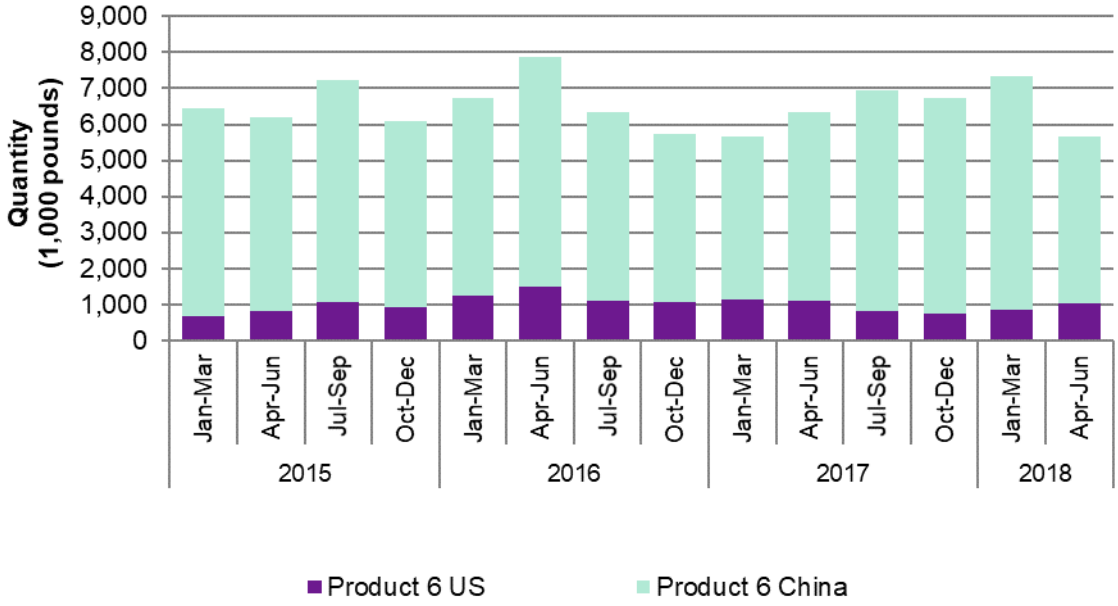
Figure V-7
CAAS: Weighted-average prices and quantities of domestic and imported product 5, by quarter, January 2015 through June 2018



Product 5: Alloy 3003, H-14 temper, 0.090 inch thickness, 48 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

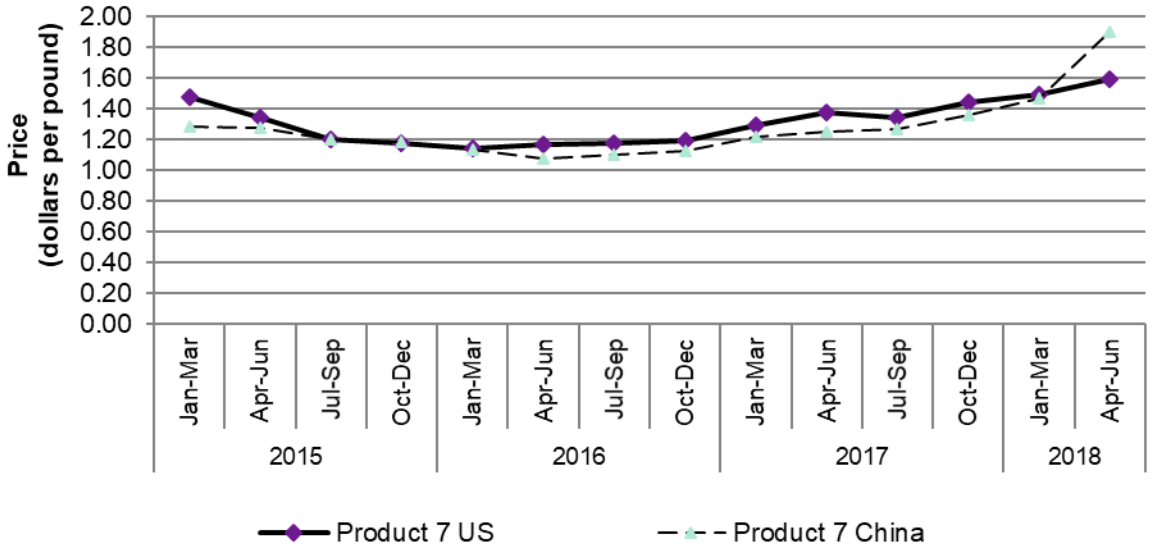
Figure V-8
CAAS: Weighted-average prices and quantities of domestic and imported product 6, by quarter, January 2015 through June 2018

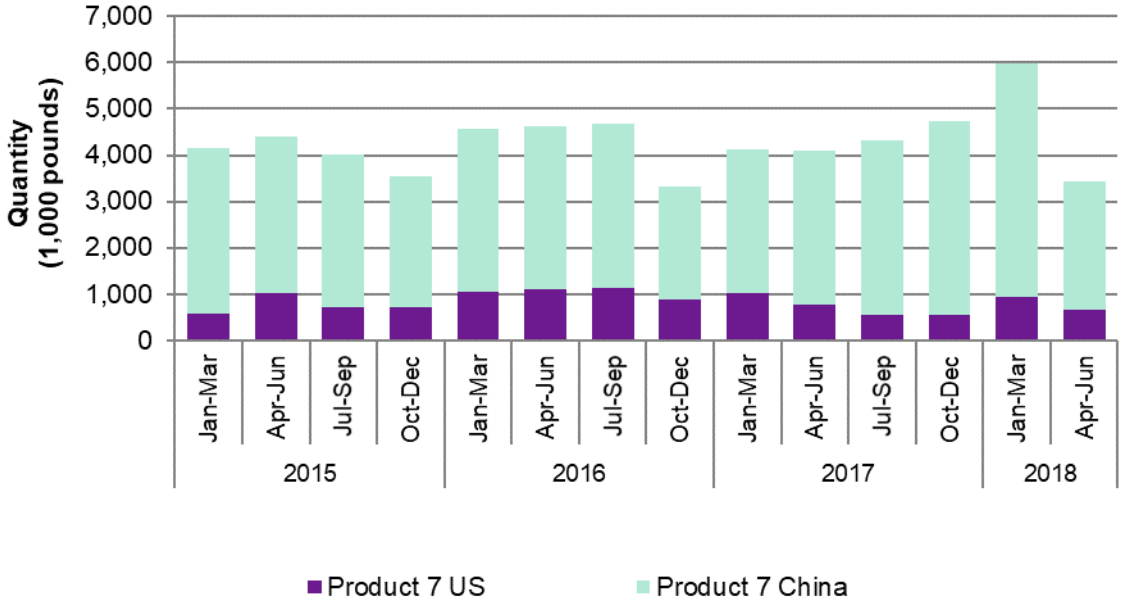




Product 6: Alloy 3003, H-14 temper, 0.125 inch thickness, 48 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

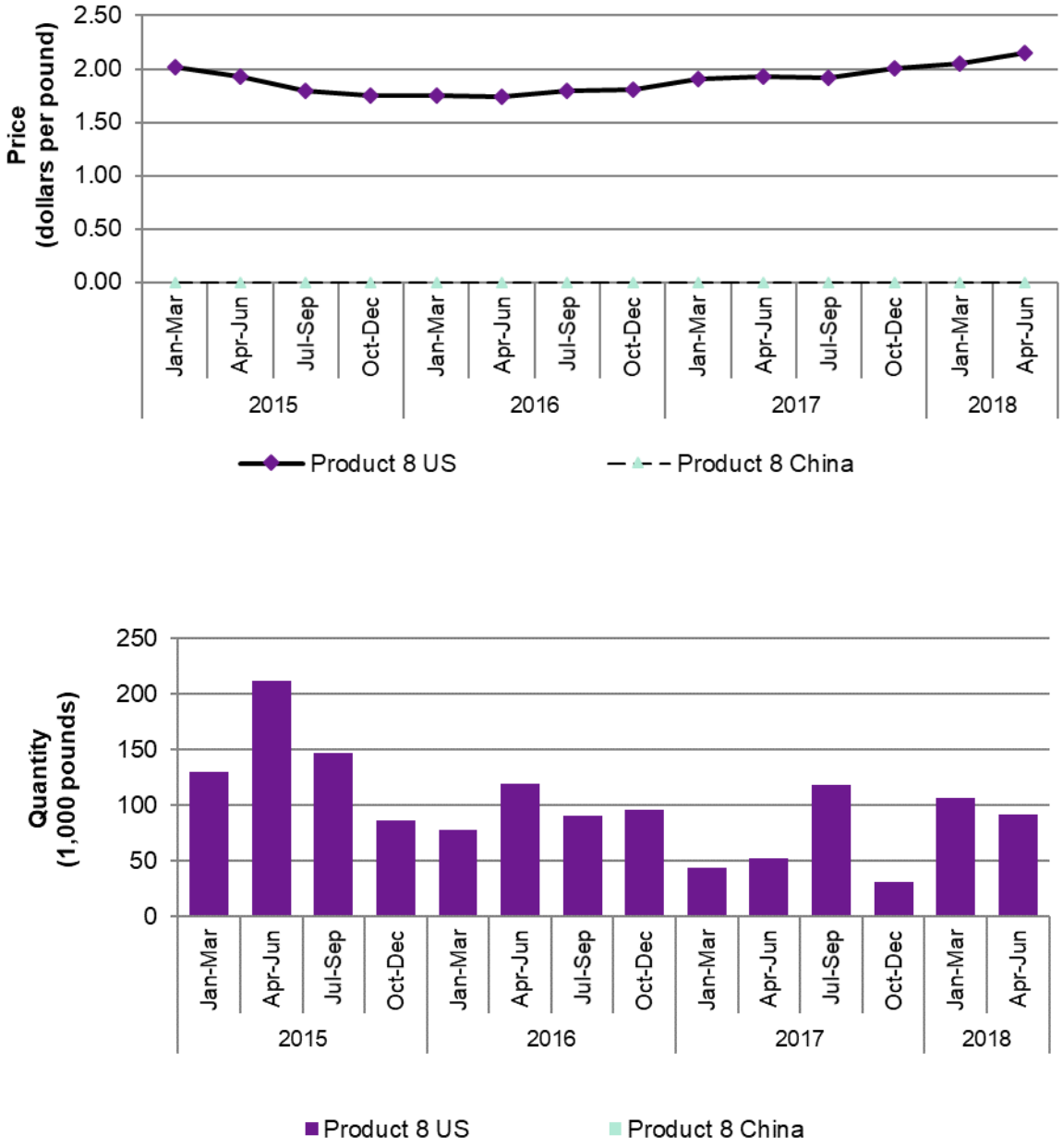
Figure V-9
CAAS: Weighted-average prices and quantities of domestic and imported product 7, by quarter, January 2015 through June 2018





Product 7: Alloy 3003, H-14 temper, 0.125 inch thickness, 60 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

Figure V-10
CAAS: Weighted-average prices and quantities of domestic and imported product 8, by quarter, January 2015 through June 2018



Product 8: Alloy 3003 modified, 4343 5% one side clad, O temper, 0.063 inch thickness, 24 inches wide.
Source: Compiled from data submitted in response to Commission questionnaires.

Price trends

Prices increased overall for both U.S.-produced and imported Chinese CAAS during January 2015-June 2018. Table V-12 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from 4.4 to 8.4 percent, while import price increases ranged from 11.2 to 48.2 percent. Prices generally decreased during 2015, remained at these lower levels during 2016, and increased throughout 2017 and 2018, contributing to a net increase in prices.

Table V-12
CAAS: Summary of weighted-average f.o.b. prices for products 1-8 from the United States and China

Item	Number of quarters	Low price (per pound)	High price (per pound)	Change in price[1] (percent)
Product 1				
United States	14	1.20	1.63	8.2
China	14	1.11	1.70	28.6
Product 2				
United States	14	1.21	1.64	8.3
China	14	1.12	1.78	33.6
Product 3				
United States	14	1.22	1.66	6.9
China	14	1.12	1.75	32.3
Product 4				
United States	14	1.22	1.64	8.4
China	14	1.12	1.84	37.0
Product 5				
United States	14	1.12	1.59	4.4
China	14	1.08	1.64	30.3
Product 6				
United States	14	1.15	1.59	8.0
China	14	1.10	1.47	11.2
Product 7				
United States	14	1.14	1.59	7.6
China	14	1.08	1.90	48.2
Product 8				
United States	14	1.73	2.15	6.9
China	---	---	---	---

[1] Percentage change from the first quarter in which data were available to the last quarter in which price data were available.

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

Price comparisons

As shown in tables V-13 and V-14, prices for CAAS imported from China were below those for U.S.-produced CAAS in 82 of 98 instances (403.1 million pounds); margins of underselling ranged from less than 1 percent to 16.9 percent. In the remaining 16 instances (55.8 million pounds), prices for CAAS imported from China were between less than 1 percent and 19.3 percent above prices for the domestic product.

Table V-13
CAAS: Instances of underselling/overselling and the range and average of margins, by country, January 2015 through June 2018

Source	Underselling				
	Number of quarters	Quantity[1] (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
China	82	403,054,452	7.7	0.2	16.9
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
China	16	55,759,949	(3.9)	(0.1)	(19.3)

Note. – No overselling/underselling instances were recorded for Product 8 due to lack of pricing data.

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

Table V-14
CAAS: Instances of underselling/overselling and the range and average of margins, by product, January 2015 through June 2018

Source	Underselling				
	Number of quarters	Quantity[1] pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	11	54,546,918	9.1	4.8	12.3
Product 2	12	46,985,316	8.0	0.4	12.6
Product 3	13	116,635,851	8.7	2.6	15.2
Product 4	12	66,263,947	8.6	2.5	12.0
Product 5	12	18,773,545	7.6	0.3	16.9
Product 6	11	60,427,142	5.4	0.2	11.4
Product 7	11	39,421,733	6.1	1.2	13.3
Product 8	0	0	---	---	---
Total, underselling	82	403,054,452	7.7	0.2	16.9
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	3	11,318,342	(1.8)	(0.1)	(4.3)
Product 2	2	4,764,544	(4.4)	(0.2)	(8.6)
Product 3	1	4,347,916	(4.9)	(4.9)	(4.9)
Product 4	2	6,712,909	(6.5)	(0.6)	(12.3)
Product 5	2	2,918,301	(3.0)	(2.3)	(3.7)
Product 6	3	16,789,613	(1.4)	(0.2)	(3.1)
Product 7	3	8,908,324	(6.8)	(0.5)	(19.3)
Product 8	0	0	---	---	---
Total, overselling	16	55,759,949	(3.9)	(0.1)	(19.3)

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

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

LOST SALES AND LOST REVENUE

In the preliminary phase of these investigations, the Commission requested that U.S. producers of CAAS report purchases where they experienced instances of lost sales or revenue due to competition from imports of CAAS from China during January 2014 through September 2017. Nine U.S. producers submitted lost sales and lost revenue allegations. The six responding U.S. producers identified 27 firms where they lost sales and/or revenue (26 consisting of lost sales allegations, 13 consisting of lost revenue allegations, and 7 consisting of both types of allegations). Responding firms stated they had lost sales and/or revenue between January 2014 to December 2017 for aluminum tread, common alloy aluminum coil, 3105 products, 3003 products, and 5052 products bought under contracts and spot sales.

In the final phase of these investigations, of the 10 responding U.S. producers, 8 reported that they had to either reduce prices or roll back announced price increases, and 7 firms reported that they had lost sales.

Staff contacted 150 purchasers and received responses from 35 purchasers. Responding purchasers reported purchasing and/or importing 2.5 million short tons of CAAS during 2015 2015 through 2017 (table V-15).

Of the 28 responding purchasers, 22 reported that, since 2015, they had purchased imported CAAS from China instead of U.S.-produced product. Twenty-one of these purchasers reported that subject import prices were lower than U.S.-produced product, and 17 of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Fifteen purchasers estimated the quantity of CAAS purchased from China purchased instead of domestic product; quantities ranged from one short ton to 146,199 short tons (table V-16). Purchasers identified availability, capacity, and customer requirements as non-price reasons for purchasing imported rather than U.S.-produced product.

Of the 29 responding purchasers, six reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China, and 14 reported that they did not know (table V-17). The reported estimated price reductions ranged from 10 to 20 percent. In describing the price reductions, purchasers identified foreign fighter programs and U.S. producers being more focused on the aerospace and automotive customers.

Table V-15
CAAS: Purchasers' responses to purchasing patterns

Purchaser	Purchases and imports in 2015-17 (short tons)			Change in domestic share[2] (pp, 2015-17)	Change in subject country share[2] (pp, 2015-17)
	Domestic	Subject	All other[1]		
***	***	***	***	***	***
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***	***	***	***	***	***
***	***	***	***	***	***
Total	1,273,296	572,249	708,926	(6.2)	0.6

[1] Includes all other sources and unknown sources.
[2] Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

Table V-16
CAAS: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity purchased instead of domestic (short tons)	If No, non-price reason
***	***	***	***	***	***
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Total	Yes--22; No--12	Yes--21; No--2	Yes--17; No--5	189,512	

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

Table V-17
CAAS: Purchasers' responses to U.S. producer price reductions

Purchaser	U.S. producers reduced priced to compete with subject imports (Y/N)	If U.S. producers reduced prices: Estimated U.S. price reduction (percent)	If U.S. producers reduced prices: Additional information, if available
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Total / average	Yes--6; No--15	16.3	

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

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Ten U.S. producers (Alcoa Warrick, Aleris, Arconic, Constellium, Granges, Jupiter, JW Aluminum, Novelis, Reynolds, and Skana) reported their financial results on CAAS operations for January 2015 through June 2018.[1] [2]

Total CAAS sales are relatively concentrated with *** and *** accounting for *** percent and *** percent, respectively, of the U.S. industry's total sales volume. The remaining U.S. producers' share of total sales volume ranged from *** percent (***) to *** percent (***).[3] Company-specific changes in operations, which affected reported financial results, are described below.

OPERATIONS ON CAAS

Table VI-1 and table VI-2 present income-and-loss data for U.S. producers' CAAS operations and corresponding changes in average per short ton values, respectively.[4] Table VI-3

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[1] With the exception of ***, which reported their financial results on the basis of International Financial Reporting Standards (IFRS), U.S. producers reported their financial results on the basis of generally accepted accounting principles (GAAP). All U.S. producers reported their financial results for calendar-year periods.

Several U.S. producers are part of large multinational corporations: Alcoa Warrick is part of Alcoa Corporation's Aluminum segment. Alcoa's 2017 Form 10-K, p. 18. Aleris' U.S. CAAS operations are included in its North America segment operations. Aleris' 2017 Form 10-K, p. 4. Arconic's CAAS operations are included in its Global Rolled Products segment. Arconic's 2017 Form 10-K, p. 8. Constellium's U.S. CAAS operations are included in its Aerospace & Transportation segment (Ravenswood, West Virginia facility) and its Packaging & Rolled Products segment (Muscle Shoals, Alabama). Constellium's 2017 Form 20-F, pp. 42-43. The U.S. CAAS operations of Granges, which designates a single reportable segment (Global), are part of the company's Americas Group. Granges 2017 Annual Report, pp. 56-57, p. 75. Novelis' U.S. CAAS operations are part of the company's North America segment. Novelis' 2018 Form 10-K, p. 9. (Note: Novelis is a business unit of Hindalco Industries, which is owned by Indian conglomerate Aditya Birla Group. *U.S. aluminum firm Novelis to buy Aleris for $2.6 billion*, https://www.reuters.com/article/us-aleris-hindalco-m-a/u-s-aluminum-firm-novelis-to-buy-aleris-for-2-6-billion-idUSKBN1KG1H8, retrieved September 11, 2018. Reynold's CAAS operations are part of the company's Consumer Products Group. Reynolds' 2017 Form 20-F, p. 5.

Jupiter, JW Aluminum, and Skana do not publically report their financial results.

[2] Staff conducted a verification of Aleris' producer questionnaire on September 26-27, 2018. Data changes pursuant to verification are reflected in this and other relevant sections of the staff report. Staff verification report, Aleris, October 1, 2018, p. 2.

[3] On July 26, 2018, Aleris announced that it has entered into a definitive agreement to be acquired by Novelis. Aleris' 2018 Form 10-Q (Q2), p. 29.

[4] Appendix C presents U.S. producers' financial results for in-scope brazing stock and can stock.

presents a variance analysis of these financial results and table VI-4 presents selected firm-specific financial information.[5]

Revenue

The majority of CAAS revenue reflects commercial sales with a relatively small amount of internal consumption (***).[6] Given the predominance of commercial sales, a single line item for revenue is presented in the tables below.

Sales volume

On an overall basis, the U.S. industry's total CAAS sales volume remained within a relatively narrow range: increasing by 0.8 percent in 2016, declining by 2.9 percent in 2017, and 3.6 percent higher in January-June 2018 compared to January-June 2017.

On a company-specific basis, directional changes in sales volume were mixed (see table VI-4). While changes in company-specific shares of total sales volume were modest for most U.S. producers, the changes in *** share of total U.S. sales volume were more pronounced: declining from *** percent of total U.S. sales volume in 2015 to *** percent in 2017 and then increasing somewhat to *** percent in January-June 2018. ***, reported an overall increase in its share of total sales volume from *** percent in 2015 to *** percent in January-June 2018.[7]

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[5] The Commission's variance analysis is calculated in three parts: sales variance, cost of goods sold (COGS) variance, and sales, general, and administrative (SG&A) expenses variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expenses variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. As summarized at the bottom of the table, the price variance is from sales, the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expenses variances. In general, the utility of the Commission's variance analysis is enhanced when product mix remains the same throughout the period. Notwithstanding some variation, most U.S. producers indicated that CAAS product mix did not change substantially during 2015 through January-June 2018.

[6] E-mail with attachment from *** to USITC auditor, September 12, 2018.

[7] ***. With regard to the overall decline in consolidated revenue in 2016 compared to 2015 and in conjunction with other positive and negative factors, Aleris stated, "Production issues, planned outages and bottlenecks prevented the North America segment from realizing the benefits of a strong demand environment . . ." Aleris' 2017 Form 10-K, p. 43. In describing the increase in its overall consolidated revenue in 2017 compared to 2016 and in conjunction with other positive and negative factors, Aleris noted, "These increases were partially offset by lower volumes that resulted from the extended planned outage at the Lewisport hot mill in the third quarter {2017} undertaken in connection with the North America ABS Project, uneven demand impacting our North America building and construction volumes . . ." Aleris' 2017 Form 10-K, p. 35. Aleris also noted, "The extended planned outage at the Lewisport hot mill resulted in lost shipments . . ." Ibid. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

Table VI-1
CAAS: Results of operations of U.S. producers, 2015-17, January-June 2017, and January-June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
Total net sales	1,329,421	1,340,308	1,301,168	675,318	699,840
	Value (1,000 dollars)				
Total net sales	3,678,215	3,405,815	3,815,525	1,933,660	2,283,860
Cost of goods sold.-- Raw materials	2,322,373	1,999,421	2,421,925	1,206,428	1,441,627
Direct labor	353,425	365,239	381,336	195,016	204,433
Other factory costs	758,568	734,287	782,397	378,189	412,181
Total COGS	3,434,366	3,098,947	3,585,658	1,779,633	2,058,241
Gross profit	243,849	306,868	229,867	154,027	225,619
SG&A expense	178,579	208,643	204,288	100,644	79,148
Operating income or (loss)	65,270	98,225	25,579	53,383	146,471
Interest expense	87,349	72,722	118,621	48,395	68,992
All other expenses	10,146	16,028	2,869	1,323	731
All other income	5,256	9,355	20,268	8,177	5,428
Net income or (loss)	(26,969)	18,830	(75,643)	11,842	82,176
Depreciation/amortization	148,738	152,536	162,121	74,897	87,152
Cash flow	121,769	171,366	86,478	86,739	169,328
	Ratio to net sales (percent)				
Cost of goods sold.-- Raw materials	63.1	58.7	63.5	62.4	63.1
Direct labor	9.6	10.7	10.0	10.1	9.0
Other factory costs	20.6	21.6	20.5	19.6	18.0
Average COGS	93.4	91.0	94.0	92.0	90.1
Gross profit	6.6	9.0	6.0	8.0	9.9
SG&A expense	4.9	6.1	5.4	5.2	3.5
Operating income or (loss)	1.8	2.9	0.7	2.8	6.4
Net income or (loss)	(0.7)	0.6	(2.0)	0.6	3.6

Table continued on next page.

Table VI-1—Continued
CAAS: Results of operations of U.S. producers, 2015-17, January-June 2017, and January-June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Ratio to total COGS (percent)				
Cost of goods sold.-- Raw materials	67.6	64.5	67.5	67.8	70.0
Direct labor	10.3	11.8	10.6	11.0	9.9
Other factory costs	22.1	23.7	21.8	21.3	20.0
Average COGS	100.0	100.0	100.0	100.0	100.0
	Unit value (dollars per short ton)				
Total net sales	2,767	2,541	2,932	2,863	3,263
Cost of goods sold.-- Raw materials	1,747	1,492	1,861	1,786	2,060
Direct labor	266	273	293	289	292
Other factory costs	571	548	601	560	589
Average COGS	2,583	2,312	2,756	2,635	2,941
Gross profit	183	229	177	228	322
SG&A expense	134	156	157	149	113
Operating income or (loss)	49	73	20	79	209
Net income or (loss)	(20)	14	(58)	18	117
	Number of firms reporting				
Operating losses	3	2	2	2	2
Net losses	5	3	6	4	3
Data	10	10	10	10	10

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

Table VI-2
CAAS: Changes in average per short ton values, 2015-17, January-June 2017, and January-June 2018

Item	Between calendar years			Between partial year period
	2015-17	2015-16	2016-17	2017-18
	Change in AUVs (dollars per short ton)			
Total net sales	166	(226)	391	400
Cost of goods sold.-- Raw materials	114	(255)	370	273
Direct labor	27	7	21	3
Other factory costs	31	(23)	53	29
Average COGS	172	(271)	444	306
Gross profit	(7)	46	(52)	94
SG&A expense	23	21	1	(36)
Operating income or (loss)	(29)	24	(54)	130
Net income or (loss)	(38)	34	(72)	100

Table continued on next page.

Table VI-2—Continued
CAAS: Changes in average per short ton values, 2015-17, January-June 2017, and January-June 2018

Item	Between calendar years			Between partial year period
	2015-17	2015-16	2016-17	2017-18
	Change in AUVs (dollars per short ton)			
Supplemental reconciliation of factors impacting changes in average gross profit:				
Net difference between changes in sales value and raw material	51	29	22	127
Changes in average conversion cost[1]	58	(16)	74	32
Changes in average gross profit	(7)	46	(52)	94

[1] Conversion cost is the sum of direct labor and other factory costs.

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

Table VI-3
CAAS: Variance analysis on the operations of U.S. producers, 2015-17, January-June 2017, and January-June 2018

Item	Between calendar years			Between partial year period
	2015-17	2015-16	2016-17	2017-18
Net sales:				
Price variance	215,480	(302,522)	509,167	279,985
Volume variance	(78,170)	30,122	(99,457)	70,215
Net sales variance	137,310	(272,400)	409,710	350,200
COGS:				
Cost variance	(224,280)	363,544	(577,207)	(213,986)
Volume variance	72,988	(28,125)	90,496	(64,622)
COGS variance	(151,292)	335,419	(486,711)	(278,608)
Gross profit variance	(13,982)	63,019	(77,001)	71,592
SG&A expenses:				
Cost/expense variance	(29,504)	(28,602)	(1,738)	25,151
Volume variance	3,795	(1,462)	6,093	(3,655)
Total SG&A expense variance	(25,709)	(30,064)	4,355	21,496
Operating income variance	(39,691)	32,955	(72,646)	93,088
Summarized (at the operating income level) as:				
Price variance	215,480	(302,522)	509,167	279,985
Net cost/expense variance	(253,784)	334,942	(578,945)	(188,836)
Net volume variance	(1,387)	535	(2,868)	1,938

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

Table VI-4
CAAS: Results of operations of U.S. producers, by firm, 2015-17, January-June 2017, and January-June 2018

* * * * * * *

Sales value

Table VI-4 shows that, while company-specific magnitudes varied, all U.S. producers reported the same directional pattern of change with respect CAAS average per short ton sales values: declining in 2016, increasing in 2017, and higher in January-June 2018 compared to January-June 2017. Most U.S. producers indicated that CAAS sales revenue reflects the use of pass through formulas, primarily related to raw materials.[8]

Table VI-4 also shows that company-specific average per short ton sales values covered a relatively wide range with *** reporting the highest average sales value and *** consistently reporting the lowest average sales value.

Cost of goods sold and gross profit or loss

Raw materials

The largest component of COGS is raw material costs, which ranged from a low of 64.5 percent in 2016 to a high of 70.0 percent in January-June 2018.[9] Raw material costs primarily represent a combination of primary aluminum and scrap aluminum, but also include secondary inputs. On an overall basis, scrap aluminum accounted for the largest share of total 2017 raw material cost (*** percent), followed by primary aluminum (*** percent), and other raw material costs (*** percent).[10]

On a company-specific basis and with respect to the metal component specifically, U.S. producers varied in terms of their relative shares of scrap versus primary aluminum. *** reported similar scrap aluminum raw material cost shares (*** percent and *** percent, respectively) and primary aluminum costs shares (*** percent and *** percent, respectively).[11]

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[8] ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

[9] ***. *** producer questionnaire, response to III-7. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. *** questionnaire, response to III-7. ***. *** questionnaire, response to III-7. E-mail with attachment from *** to USITC auditor, September 12, 2018.

[10] USITC auditor notes (final phase).

[11] *** reported the highest company-specific scrap aluminum cost share (*** percent) and conversely the lowest primary aluminum cost share (*** percent). *** reported the highest company-

Of those U.S. producers separately reporting the cost share of other raw materials, *** reported the largest company-specific share (*** percent, consisting of ***).[12]

As noted above, U.S. producers often use a pass through formula to better match CAAS sales values and the cost of raw material consumed in production.[13] Several U.S. producers also reported using derivative financial instruments, in various forms, to minimize the impact of fluctuations in the cost of primary and scrap aluminum.[14] While all U.S. producers except *** use derivatives to some extent for hedging purposes, the classification of related hedging gains or losses in reported financial results varies.[15]

In addition to hedging, U.S. producers' management of input costs also includes activity such as the procurement of primary and scrap aluminum by personnel with specialized experience and the use of LME index to correlate both revenue and cost.[16]

Table VI-4 shows that, while magnitudes varied, all U.S. producers reported the same directional pattern with regard to average per short ton raw material costs: declining in 2016, increasing in 2017, and higher in January-June 2018 compared to January-June 2017. Similar to the pattern of company-specific average per short ton sales values, average raw material costs

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specific primary aluminum cost share (*** percent) and conversely the lowest scrap aluminum cost share (*** percent). USITC auditor notes (final phase).

In addition to underlying manufacturing requirements, the incentive to use aluminum scrap versus primary aluminum can also reflect differences in relative costs. See, e.g., Constellium 2017 20-F, p. 64. "Our results are also impacted by differences between changes in the prices of primary and scrap aluminum. As we price our product using the prevailing price of primary aluminum but purchase large amounts of scrap aluminum to manufacture our products, we benefit when primary aluminum price increases exceed scrap price increases. Conversely, when scrap price increases exceed primary aluminum price increases, our results are negatively impacted. The difference between the price of primary aluminum and scrap prices is referred to as the "scrap spread" and is impacted by the effectiveness of our scrap purchasing activities, the supply of scrap available and movements in the terminal commodity markets."

[12] *** producer questionnaire, response III-9b (note 1).

[13] Notwithstanding the use of pass through formulas, average per short ton sales values and raw material costs do not move in lock step. See, e.g., Novelis' 2018 Form 10-K, p. 16. "Our purchase and sales contracts for primary aluminum are based on the LME price plus a regional market premium, which is a surcharge in addition to the LME price. There are typically timing differences between the pricing periods for purchases and sales where purchase prices we pay tend to be fixed and paid earlier than sales prices we charge our customers. This creates a price exposure we call "metal price lag."

[14] ***. *** and *** producer questionnaires, responses to III-9e. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

[15] ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. Staff verification report, Aleris, October 1, 2018, p. 5. ***. E-mail with attachment from *** to USITC auditor September 12, 2018. ***. E-mail with attachment from GES on behalf of *** to USITC auditor September 12, 2018. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

***. E-mail with attachment from *** to USITC auditor September 12, 2018.

[16] See, e.g., *** producer questionnaire, response III-9c.

covered a relatively wide range. Throughout most of the period *** reported the highest and lowest average per short ton raw material costs, respectively.

Other factory costs and direct labor

Other factory costs, the second largest component of COGS, increased to their highest share of total COGS in 2016 (23.7 percent) and subsequently declined and were at their lowest share in January-June 2018 (20.0 percent). In 2017, electricity and natural gas costs accounted for *** percent and *** percent, respectively, of total other factory costs.[17] As indicated above, few U.S. producers use hedges for energy costs; most actively manage energy costs through other means. Direct labor, the smallest component of COGS, followed a similar directional pattern as other factory costs but remained in a narrower range: declining from a high of 11.8 percent of total COGS in 2016 to a low of 9.9 percent in January-June 2018.

Unlike average per short ton sales values and raw material costs, in which the same directional trends were reported by all U.S. producers, directional changes in company-specific average per short ton conversion costs (direct labor and other factory costs combined) were mixed throughout the period.[18] While several U.S. producers reported lower average per short ton conversion costs in 2016 and, to a lesser extent, in 2017, *** reported a *** in 2016 and a *** in 2017.[19] In contrast, *** reported a decline in average per short ton conversion cost in 2016 and a modest increase in 2017. *** companies reported higher average conversion costs in January-June 2018 compared to January-June 2017.

Cost of goods sold and gross profit

Consistent with the large share of total COGS accounted for by raw material costs, all U.S. producers reported the same directional pattern of declining average COGS in 2016,

[17] USITC auditor notes (final phase). These shares varied by company with *** reporting the highest electricity cost share (*** percent) and *** the lowest (*** percent). With respect to natural gas, *** reported the highest share (*** percent) and *** reported the lowest (*** percent). Ibid. In addition to underlying differences in the amount of energy actually consumed, the manner and level at which costs are assigned for accounting purposes is specific to each company.

[18] ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. E-mail with attachment from *** to USITC auditor September 12, 2018.

[19] In describing the increase in its overall consolidated loss from continuing operations in 2017 compared to 2016 and in conjunction with other factors, Aleris noted, "the extended planned outage at the Lewisport hot mill resulted in lost shipments . . . start-up costs, primarily related to labor and other expenses associated with the North America ABS Project . . ." Aleris' 2017 Form 10-K, p. 35. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. With regard to its overall operations, Aleris stated, "Because we generally have high fixed costs, our near-term profitability is significantly affected by decreased processing volume." Aleris' 2017 Form 10-K, p. 12. ***.

increases in 2017, and higher average COGS in January-June 2018 compared to January-June 2017 (see table VI-4). Table VI-2 shows that overall changes in average per short ton COGS were largely a function of changes in average raw material costs.

On a company-specific basis (see table VI-4), U.S. producers reported a relatively wide range of COGS with *** reporting the highest average per short ton COGS throughout the period and *** reporting the lowest.

While most U.S. producers reported gross profit throughout the period,[20] directional changes in total gross profit varied and ranged from substantial to relatively modest; e.g., while *** total gross profit declined *** percent in 2016, increased *** percent in 2017, and was *** percent higher in January-June 2018 compared to January-June 2017, *** gross profit increased *** percent in 2016, declined *** percent in 2017, and was *** percent higher in January-June 2018 compared to January-June 2017). *** gross profit ratio (total gross profit divided by total revenue) was also higher compared to *** gross profit ratio throughout most of the period but declined and was exceeded by *** improved gross profit ratio in January-June 2018.[21]

On an overall basis, period-to-period changes in the U.S. industry's total gross profit reflect a combination of changes in sales volume and gross profit ratios with the relative importance of each factor alternating somewhat during the period.[22]

SG&A expenses and operating income or loss

U.S. producers reported a relatively wide range of company-specific SG&A expense ratios (total SG&A expenses divided by total revenue) which, with some exceptions, generally exhibited limited period-to-period fluctuations.[23] While the level of company-specific SG&A expenses was a contributing factor, those companies reporting *** throughout all or most of

[20] ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. E-mail with attachment from *** to USITC auditor September 12, 2018.

[21] ***. With regard to higher North America segment income in January-June 2018 compared to January-June 2017, Aleris noted, "improved rolling margins and favorable scrap spreads, which resulted from rising aluminum prices, improved scrap availability and strategic metal purchasing decisions . . . a favorable change in metal price lag . . . an increase in volumes. . . {t}hese increases were partially offset by significantly higher freight costs and wage inflation, partially offset by productivity gains from improved operational performance . . ." Aleris' 2018 Form 10-Q (Q2), p. 45.

[22] In conjunction with lower total sales volume, the decline in gross profit ratio in 2017, to its lowest level of the period, reflects an increase in average conversion costs, which exceeded the positive net difference between changes in average sales value and changes in average raw material cost (see table VI-2). The higher gross profit ratio in January-June 2018 compared to January-June 2017 reflects a positive net difference between changes in average per short ton sales value and raw material cost, which were only partially offset by higher average conversion costs.

[23] ***. E-mail with attachment from *** to USITC auditor, September 13, 2018.

the period (***) also reported relatively *** gross profit ratios compared to other U.S. producers; e.g., ***.[24]

Interest expense, other expenses, and net income or loss

While net losses would generally be expected for U.S. producers reporting low and/or negative operating results, in some instances the presence and level of company-specific net losses also reflects interest expense and/or other expenses. Table VI-4 shows that five U.S. producers reported net losses throughout all or most of the period (***).

While the majority of U.S. producers reported some level of interest expense, *** being the exceptions, a large share of the U.S. industry's total interest expense is accounted for by *** (*** percent), followed by *** (*** percent) and *** (*** percent).

Table VI-4 shows that the majority of the period's total other expenses was also accounted for by *** (*** percent).[25] The remaining U.S. producers reported other expenses at generally lower levels for all or most of the period (***), more sporadically (***), or not at all (***).[26]

Other income was reported by some U.S. producers for all or most of the period (***), while others reported no other income (***). In 2017, the relatively large increase in the U.S. industry's total other income reflects *** reported by *** of which a little less than half was a ***.[27]

While the pattern of the U.S. industry's net results followed the same directional pattern as operating results (increasing in 2016, declining in 2017, and higher in January-June 2018 compared to January-June 2017), the divergence in absolute amounts reflects increasing levels of combined interest expense and other expenses, which were only partially offset by smaller levels of corresponding other income.

[24] Table VI-4 shows that *** SG&A expense ratios were generally at the higher end of the range throughout most of the period. ***. Staff verification report, Aleris, October 1, 2018, p. 5. USITC auditor notes (final phase).

[25] ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. As indicated in footnote 15, some U.S. producers include unrealized hedging losses, or hedging losses in general, in other expenses and corresponding gains in other income.

[26] ***. E-mail with attachment from *** to USITC auditor September 12, 2018. ***. *** producer questionnaire, response III-10a.

[27] *** producer questionnaire, response III-10a. ***. E-mail with attachment from *** to USITC auditor September 12, 2018.

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-5 presents U.S. producers' capital expenditures and research and development (R&D) expenses related to their CAAS operations.

Table VI-5
CAAS: Capital expenditures and research and development (R&D) expenses of U.S. producers, by firm, 2015-17, January-June 2017, and January-June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Capital expenditures (1,000 dollars)				
* * * * * * *					
Total capital expenditures	175,069	172,884	186,046	84,941	54,930
	Research and development expenses (1,000 dollars)				
* * * * * * *					
Total research and development expenses	7,695	8,415	8,067	3,991	4,205

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

The U.S. industry's total capital expenditures increased irregularly during 2015-17. All U.S. producers, other than ***, reported capital expenditures of varying magnitudes throughout the period.[28]

While narrative descriptions of capital expenditures indicate that they include large and small- scale plant upgrades,[29] the majority of U.S. producers indicated that reported capital expenditures represent capitalized maintenance.[30]

Five U.S. producers reported R&D expenses with *** accounting for the majority of total R&D expenses (*** percent) followed by *** (*** percent), *** (*** percent), *** (*** percent), and *** (*** percent).[31]

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[28] ***. *** producer questionnaire, response III-13 (note 1). ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

[29] ***. ***. ***. *** producer questionnaires, responses to III-13 (note 1). E-mail with attachment from *** to USITC auditor, September 12, 2018.

[30] ***. *** producer questionnaires, responses to III-13 (note 1).

[31] ***. *** producer questionnaire, response III-13 (note 2). ***. Staff field trip report, Novelis, September 14, 2018, p. 3. ***. E-mail with attachment from *** to USITC auditor September 12, 2018. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018. ***. E-mail with attachment from *** to USITC auditor, September 12, 2018.

ASSETS AND RETURN ON ASSETS

Table VI-6 presents data on the U.S. producers' total net assets and operating return on net assets related to operations on CAAS.[32]

Table VI-6
CAAS: U.S. producers' total net assets and operating return on net assets, 2015-17

Firm	Calendar years		
	2015	2016	2017
	Total net assets (1,000 dollars)		
* * * * * * *			
Total net assets	2,153,418	2,111,044	2,441,413
	Operating return on assets (percent)		
* * * * * * *			
Average operating return on assets	3.0	4.7	1.0

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

CAPITAL AND INVESTMENT

The Commission requested the U.S. producers of CAAS to describe any actual or potential negative effects on their return on investment or its 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 CAAS from China. Table VI-7 tabulates the responses on actual negative effects on investment, growth and development, as well as anticipated negative effects. Table VI-8 presents the narrative responses of the U.S. producers regarding actual and anticipated negative effects on investment, growth and development.

[32] With respect to a company's overall operations, staff notes that a total asset value (i.e., the bottom line value on the asset side of a company's balance sheet) reflects an aggregation of a number of current and non-current assets, which, in many instances, are not product specific. Allocation factors were presumably necessary to report total asset values specific to U.S. producers' CAAS operations. The ability of U.S. producers to assign total asset values to discrete product lines affects the meaningfulness of operating return on net assets.

Table VI-7
CAAS: Negative effects of imports from China on investment, growth, and development since January 1, 2015

Item	No	Yes
Negative effects on investment	2	8
Cancellation, postponement, or rejection of expansion projects		6
Denial or rejection of investment proposal		3
Reduction in the size of capital investments		4
Return on specific investments negatively impacted		3
Other		2
Negative effects on growth and development	2	8
Rejection of bank loans		0
Lowering of credit rating		1
Problem related to the issue of stocks or bonds		1
Ability to service debt		1
Other		6
Anticipated negative effects of imports	1	9

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

Table VI-8
CAAS: Narrative responses of U.S. producers regarding actual and anticipated negative effects of imports from China on investment, growth, and development since January 1, 2015

* * * * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

---

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

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

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

[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 281 firms believed to produce and/or export CAAS from China.[3] Usable responses to the Commission's questionnaire were received from twelve firms: Chalco Ruimin Co., Ltd. ("Chalco Ruimin"), Chalco-SWA Cold Rolling Co., Ltd. ("Chalco-SWA"), Henan Founder Beyond Industry Co., Ltd. ("Henan Founder"), Henan Mingtai Al. Industrial Co., Ltd. ("Mingtai Aluminum"), Jiangsu Alcha Aluminium Co., Ltd. ("Jiangsu Alcha"), Kunpeng International Co., Ltd. (" Kunpeng"), Luoyang Longding Aluminium Industries Co., Ltd. ("Luoyang Longding"), Luoyang Wanji Aluminium Processing Co., Ltd. ("Wanji Group"), Qinghai Pingan Aluminium High Precision Machining Industrial Co., Ltd. ("Qinghai Pingan"), Shandong Nanshan Aluminum Co., Ltd. ("Shandong Nanshan"), Yongjie New Material Co., Ltd. ("Yongjie"), and Zhejiang GKO Aluminium Co., Ltd. ("Zhejiang GKO").

Responding Chinese producers' exports to the United States accounted for more than 85.0 percent of U.S. imports of CAAS from China in 2017. These firms estimated their production of CAAS to account of 23.7 percent of the overall production of CAAS in China in 2017.[4] Table VII-1 presents information on CAAS operations of the responding producers and exporters in China and table VII-2 presents data on non-producer exporter in China.

Table VII-1
CAAS: Summary data for producers in China, 2017

Producers	Production (short tons)	Share of reported production (percent)	Exports to the United States (short tons)	Share of reported exports to the United States (percent)	Total shipments (short tons)	Share of firm's total shipments exported to the United States (percent)
Chalco Ruimin	***	***	***	***	***	***
Chalco-SWA	***	***	***	***	***	***
Henan Founder	***	***	***	***	***	***
Jiangsu Alcha	***	***	***	***	***	***
Luoyang Longding	***	***	***	***	***	***
Mingtai Aluminum	***	***	***	***	***	***
Qinghai Pingan	***	***	***	***	***	***
Shandong Nanshan	***	***	***	***	***	***
Wanji Group	***	***	***	***	***	***
Yongjie	***	***	***	***	***	***
Zhejiang GKO	***	***	***	***	***	***
Total	1,805,777	100.0	346,937	100.0	1,801,194	19.3

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

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

[4] Foreign producers' questionnaire responses, section II-6.

Table VII-2
CAAS: Summary data on non-producer exporter in China, 2017

* * * * * * *

Changes in operations

The Commission requested subject producers of CAAS to report on any changes experienced in relation to the production of CAAS since January 1, 2015. As presented in table VII-3, producers in China reported several operational and organizational changes. One firm reported a plant opening and two firms reported expansions.

Table VII-3
CAAS: Chinese producers' reported changes in operations, since January 1, 2015

* * * * * * *

Operations on CAAS

Table VII-4 presents information on the CAAS operations of the responding producers and exporters in China. In 2017, Chinese producers reported production of 1,805,777 short tons, an increase of 49.3 percent from 2015. Chinese producers also reported increases in capacity. From 2015 to 2017 reported capacity increased by 9.1 percent. Reported capacity was also higher in the 2018 interim period compared to the 2017 interim period. Chinese producers projected production of CAAS to decrease by 12,933 short tons from 2017 to 2018 but to increase by 85,724 short tons from 2018 to 2019; this amounts to an overall increase of production from 2017 to 2019 of 72,791 short tons or 4.0 percent.

Exports of CAAS from China to the United States increased by 88.7 percent from 2015 to 2017. However, exports of CAAS from China to the United States during January to June 2018 were 63.4 percent lower than during January to June 2017. Moreover, Chinese producers projected export shipments to the United States to decline from 346,937 short tons in 2017 to 66,313 short tons in 2018, a decrease of 80.9 percent. Except for the ***, responding Chinese producers and exporters projected no export shipments of CAAS to the United States in 2019. Seven of twelve responding Chinese producers projected declines in CAAS sales to the U.S. market due to the current 10 percent tariff on imports aluminum under section 232 of the Trade Expansion Act of 1962.[5] [6]

[5] Foreign producers' questionnaire responses, sections II-9 and II-10.

[6] *Presidential Proclamation on Adjusting Imports of Aluminum into the United States*, Presidential Proclamation 9704, March 8, 2018; and *Adjusting Imports of Aluminum Into the United States*, 83 FR 11619, March 15, 2018.

Table VII-4
CAAS: Data for industry in China, 2015-17, January to June 2017, and January to June 2018 and projection calendar years 2018 and 2019

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2015	2016	2017	2017	2018	2018	2019
	Quantity (short tons)						
Capacity	2,024,895	2,051,381	2,209,248	1,142,501	1,172,501	2,259,248	2,289,248
Production	1,209,791	1,443,883	1,805,777	972,474	920,740	1,792,844	1,878,568
End-of-period inventories	80,081	70,074	74,657	85,694	89,874	68,801	64,724
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	874,940	1,067,436	1,261,692	676,064	680,953	1,461,586	1,559,794
Export shipments to:							
United States	183,808	240,338	346,937	182,154	66,592	71,313	---
All other markets	148,560	146,116	192,565	98,636	157,978	265,801	322,852
Total exports	332,368	386,454	539,502	280,790	224,570	337,114	322,852
Total shipments	1,207,308	1,453,890	1,801,194	956,854	905,523	1,798,700	1,882,646
	Ratios and shares (percent)						
Capacity utilization	59.7	70.4	81.7	85.1	78.5	79.4	82.1
Inventories/production	6.6	4.9	4.1	4.4	4.9	3.8	3.4
Inventories/total shipments	6.6	4.8	4.1	4.5	5.0	3.8	3.4
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	72.5	73.4	70.0	70.7	75.2	81.3	82.9
Export shipments to:							
United States	15.2	16.5	19.3	19.0	7.4	4.0	---
All other markets	12.3	10.1	10.7	10.3	17.4	14.8	17.1
Total exports	27.5	26.6	30.0	29.3	24.8	18.7	17.1
Total shipments	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Quantity (short tons)						
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 the United States	***	***	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

Alternative products

Commission questionnaires asked Chinese producers to provide separate trade data for in-scope brazing stock and all other in-scope CAAS. *** responding Chinese producers *** reported producing in-scope brazing stock and *** responding Chinese producers reported producing CAAS.[7]

Ten responding Chinese firms produced other products on the same equipment and machinery used to produce CAAS. As shown in Table VII-5, products include aluminum can stock which is excluded from the scope, and out-of-scope aluminum foil, aluminum plate, and additional products including other alloy series aluminum products. Total non-CAAS production reported by Chinese producers increased by 63.6 percent from 2015 and 2017. In 2017, the share of CAAS production accounted for 64.8 percent of the total production on shared machinery.

Table VII-5
CAAS: Overall capacity and production on the same equipment as in-scope production by producers in China, 2015-17, January to June 2017, and January to June 2018

Item	Calendar year			January to June	
	2015	2016	2017	2017	2018
	Quantity (short tons)				
Overall capacity	3,166,807	3,186,807	3,568,717	1,905,858	1,935,858
Production:					
CAAS (subject in-scope)	1,209,791	1,443,883	1,805,777	972,474	920,740
Aluminum can stock (excluded)	***	***	***	***	***
Aluminum foil (out-of-scope)	***	***	***	***	***
Aluminum plate (out-of-scope)	***	***	***	***	***
Other products (out-of-scope)	***	***	***	***	***
Subtotal, non-CAAS production	599,744	760,955	981,177	557,105	673,628
Total production on same machinery	1,809,535	2,204,838	2,786,954	1,529,579	1,594,368
	Ratios and shares (percent)				
Overall capacity utilization	57.1	69.2	78.1	80.3	82.4
Share of production:					
CAAS (subject in-scope)	66.9	65.5	64.8	63.6	57.7
Aluminum can stock (excluded)	***	***	***	***	***
Aluminum foil (out-of-scope)	***	***	***	***	***
Aluminum plate (out-of-scope)	***	***	***	***	***
Other products (out-of-scope)	***	***	***	***	***
Subtotal, non-CAAS production	33.1	34.5	35.2	36.4	42.3
Total production on same machinery	100.0	100.0	100.0	100.0	100.0

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

[7] For separate trade and inventory data for in-scope brazing stock and all other in-scope CAAS see appendix E.

Exports

Table VII-6 presents data on China's exports of aluminum plates, sheets, and strip (of a thickness exceeding 0.2 mm). According to Global Trade Atlas ("GTA"), in 2017, the leading export markets for aluminum plates, sheets, and strip from China were the United States (24.2 percent of quantity) followed by Korea (9.2 percent) and Indonesia (5.9 percent). From 2015 to 2017, China's exports of aluminum plates, sheets, and strip to the United States increased by 58.1 percent. From 2015 to 2016, exports from China of aluminum plates, sheets, and strip decreased by 12.4 percent but increased from 2016 to 2017 by 26.7 percent. Overall, from 2015 to 2017, overall exports of aluminum plates, sheets, and strips from China increased by 11.0 percent.[8]

[8] GTA data presented are overstated as they include product that is outside Commerce's scope (e.g. aluminum plate) and product that is specifically excluded from Commerce's scope (e.g. can stock).

Table VII-6
Aluminum plates, sheets, and strip: Exports from China by destination market, 2015-17

Destination market	Calendar year		
	2015	2016	2017
	Quantity (short tons)		
Exports from China to the United States	350,242	399,323	553,602
Exports from China to other major destination markets.--			
Korea	221,850	121,363	209,642
Indonesia	92,015	80,017	135,202
Thailand	100,282	97,638	107,701
Nigeria	136,726	93,098	102,508
Mexico	36,294	64,108	97,557
India	94,963	66,257	79,664
Vietnam	124,706	60,906	76,288
Canada	43,285	52,412	71,682
Malaysia	94,014	66,670	63,351
United Arab Emirates	62,260	58,929	61,051
All other destination markets	705,825	645,436	730,259
Total exports from China	2,062,462	1,806,157	2,288,507
	Value (1,000 dollars)		
Exports from China to the United States	813,564	815,656	1,297,960
Exports from China to other major destination markets.--			
Korea	476,415	264,136	468,821
Indonesia	196,284	155,653	280,670
Thailand	232,230	211,661	252,618
Nigeria	288,042	180,553	211,825
Mexico	92,670	145,078	241,370
India	217,000	146,489	191,241
Vietnam	347,723	135,473	196,753
Canada	99,260	113,156	172,851
Malaysia	215,351	144,301	145,416
United Arab Emirates	141,823	119,759	135,133
All other destination markets	1,646,511	1,348,383	1,619,200
Total exports from China	4,766,873	3,780,299	5,213,859

Table continued on next page.

Table VII-6--Continued
Aluminum plates, sheets, and strip: Exports from China by destination market, 2015-17

Destination market	Calendar year		
	2015	2016	2017
	Unit value (dollars per short ton)		
Exports from China to the United States	2,323	2,043	2,345
Exports from China to other major destination markets.--			
Korea	2,147	2,176	2,236
Indonesia	2,133	1,945	2,076
Thailand	2,316	2,168	2,346
Nigeria	2,107	1,939	2,066
Mexico	2,553	2,263	2,474
India	2,285	2,211	2,401
Vietnam	2,788	2,224	2,579
Canada	2,293	2,159	2,411
Malaysia	2,291	2,164	2,295
United Arab Emirates	2,278	2,032	2,213
All other destination markets	2,333	2,089	2,217
Total exports from China	2,311	2,093	2,278
	Share of quantity (percent)		
Exports from China to the United States	17.0	22.1	24.2
Exports from China to other major destination markets.--			
Korea	10.8	6.7	9.2
Indonesia	4.5	4.4	5.9
Thailand	4.9	5.4	4.7
Nigeria	6.6	5.2	4.5
Mexico	1.8	3.5	4.3
India	4.6	3.7	3.5
Vietnam	6.0	3.4	3.3
Canada	2.1	2.9	3.1
Malaysia	4.6	3.7	2.8
United Arab Emirates	3.0	3.3	2.7
All other destination markets	34.2	35.7	31.9
Total exports from China	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 7606.11, 7606.12, 7606.91, and 7606.92 as reported by China Customs in the IHS/GTA database, accessed September 11, 2018. Trade data are likely overstated and include out of scope (aluminum plate) and excluded products (can stock).

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-7 presents data on U.S. importers' reported inventories of CAAS. From 2015 to 2017, inventories of CAAS from China increased by 46.8 percent. From 2015 to 2017 inventories of CAAS from Canada increased by 164.7 percent, whereas, inventories of CAAS from all other nonsubject countries decreased by 13.9 percent. U.S. importers' inventories of CAAS were higher in January through June 2018 than in January through June 2017, as higher levels of CAAS from nonsubject sources more than offset lower levels of CAAS from China.

Table VII-7
CAAS: U.S. importers' end-of-period inventories of imports by source, 2015-17, January to June 2017, and January to June 2018

* * * * * * *

U.S. IMPORTERS' ARRANGED IMPORTS

The Commission requested importers to indicate whether they imported or arranged for the importation of CAAS from China or Canada and other sources after June 30, 2018. Seven firms reported arranged imports from China, six from Canada, and 31 from other nonsubject countries. Table VII-8 presents arranged imports for July 2018 through June 2019.

Table VII-8
CAAS: Arranged imports, July 2018 through June 2019

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

Based on available information, CAAS from China has not been subject to other antidumping or countervailing duty investigations outside the United States.[9]

While there are currently no known safeguard measures affecting common alloy aluminum sheet in third-country markets, the European Union issued a formal notice on April 25, 2018 that it would introduce prior Union surveillance to monitor imports of certain aluminum products, including common alloy aluminum sheet and all other flat-rolled aluminum products, originating in certain third country markets. This action was in response to the President's actions under Section 232 of the Trade Expansion Act of 1962 and concerns that

[9] Conference transcript, p. 85 (Herrmann); p. 145 (Cannistra). After a review of U.S. importer and foreign producer questionnaire responses, Commission staff was unable to identify antidumping or countervailing duty orders on the subject product outside of the United States.

these actions would result in significant trade diversion and price depression for aluminum products in the European Union.[10]

On June 20, 2018, the European Commission announced its intention to impose a 25 percent retaliatory tariff on EU imports of various aluminum products originating from the United States in response to the President's actions under Section 232. These retaliatory tariffs apply to certain common alloy aluminum sheet classified under HTS subheadings 7606.11 and 7606.12.[11]

On June 29, 2018, the Government of Canada announced its intention to impose a 10 percent retaliatory tariff on Canadian imports of various aluminum products originating from the United States in response to the President's actions under Section 232. These retaliatory tariffs apply to certain common alloy aluminum sheet classified under HTS subheading 7606.12.[12]

INFORMATION ON NONSUBJECT COUNTRIES

Exports

Data on global exports of certain aluminum plates, sheets and strip during 2015-17 are presented in Table VII-9. According to GTA, Germany, Korea, and France were the largest nonsubject exporters of aluminum plates, sheets and strip in 2017, accounting for 16.8 percent, 5.4 percent, and 5.1 percent of global exports of certain aluminum plates, sheets and strip, respectively. Exports from each of these countries were less than exports from China. During 2015-17, global exports of aluminum plates, sheets and strip increased by 7.6 percent in terms of quantity.[13]

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[10] European Commission, "Commission Implementing Regulation (EU) 2018/640 of 25 April 2018 introducing prior Union surveillance of imports of certain aluminum products originating in certain third country markets," April 26, 2018, http://trade.ec.europa.eu/doclib/html/156832.htm.

[11] World Trade Organization, "Immediate Notification under Article 12.5 of the Agreement on Safeguards to the Council for Trade in Goods of Proposed Suspension of Concessions and other Obligations Referred to in Paragraph 2," May 18, 2018, http://trade.ec.europa.eu/doclib/html/156909.htm, p. 15.

[12] Government of Canada – Department of Finance, "Countermeasures in Response to Unjustified Tariffs on Canadian Steel and Aluminum Products," June 29, 2018, https://www.fin.gc.ca/access/tt-it/cacsap-cmpcaa-1-eng.asp.

[13] GTA data presented are overstated as they include product that is outside Commerce's scope (e.g. aluminum plate) and product that is specifically excluded from Commerce's scope (e.g. can stock).

Table VII-9
Aluminum plates, sheets and strip: Global exports, by exporter, 2015-17

Exporter	Calendar year		
	2015	2016	2017
	Quantity (short tons)		
United States	1,030,148	1,027,784	947,432
China	2,062,462	1,806,157	2,288,507
All other major reporting exporters.--Germany	1,560,234	1,693,197	1,731,417
Korea	565,666	512,636	553,166
France	467,536	516,150	521,431
Switzerland	276,446	318,548	337,419
Italy	310,463	336,939	333,464
Belgium	304,834	306,377	301,245
Spain	91,262	227,736	275,676
Japan	271,705	234,670	230,747
Greece	213,569	220,238	222,887
Austria	176,478	201,713	214,882
All other exporters	2,260,941	2,484,028	2,362,848
Total global exports	9,591,744	9,886,173	10,321,121
	Value (1,000 dollars)		
United States	3,782,679	3,583,646	3,553,214
China	4,766,873	3,780,299	5,213,859
All other major reporting exporters.--Germany	4,977,069	4,871,254	5,351,264
Korea	1,376,083	1,110,878	1,363,691
France	1,447,731	1,509,750	1,710,232
Switzerland	906,769	907,208	1,050,651
Italy	925,056	917,722	1,002,555
Belgium	958,042	916,314	951,703
Spain	285,183	598,155	797,177
Japan	988,826	835,357	865,135
Greece	631,642	609,875	677,292
Austria	639,954	683,578	778,872
All other exporters	6,479,737	6,525,041	6,889,304
Total global exports	28,165,644	26,849,078	30,204,947

Table continued on next page.

Table VII-9—Continued
Aluminum plates, sheets and strip: Global exports, by exporter, 2015-17

Exporter	Calendar year		
	2015	2016	2017
	Unit value (dollars per short ton)		
United States	3,672	3,487	3,750
China	2,311	2,093	2,278
All other major reporting exporters.-- Germany	3,190	2,877	3,091
Korea	2,433	2,167	2,465
France	3,097	2,925	3,280
Switzerland	3,280	2,848	3,114
Italy	2,980	2,724	3,006
Belgium	3,143	2,991	3,159
Spain	3,125	2,627	2,892
Japan	3,639	3,560	3,749
Greece	2,958	2,769	3,039
Austria	3,626	3,389	3,625
All other exporters	2,866	2,627	2,916
Total global exports	2,936	2,716	2,927
	Share of quantity (percent)		
United States	10.7	10.4	9.2
China	21.5	18.3	22.2
All other major reporting exporters.-- Germany	16.3	17.1	16.8
Korea	5.9	5.2	5.4
France	4.9	5.2	5.1
Switzerland	2.9	3.2	3.3
Italy	3.2	3.4	3.2
Belgium	3.2	3.1	2.9
Spain	1.0	2.3	2.7
Japan	2.8	2.4	2.2
Greece	2.2	2.2	2.2
Austria	1.8	2.0	2.1
All other exporters	23.6	25.1	22.9
Total global exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 7606.11, 7606.12, 7606.91, and 7606.92 as reported by various national statistical authorities in the IHS/GTA database, accessed September 11, 2018.

The industry in Germany

Novelis has two aluminum rolling mills in Germany—one in Nachterstedt and another in Neuss—that produce flat-rolled aluminum products. The Nachterstedt facility supplies rolled aluminum products to global markets, and possesses annealing and finishing capabilities. This facility also has world's largest aluminum recycling center and produces up to 400,000 metric tons of aluminum sheet ingot from recycled material per year. Novelis' facility in Neuss is a joint venture with Norsk Hydro, and is the largest aluminum rolling and casting facility in the world.[14] Constellium operates one aluminum rolling mill in Singen, Germany that possesses integrated hot and cold rolling and finishing lines. The facility employs 1,500 workers and produces flat-rolled products for the automotive, packaging, and transportation markets, as well as for other industrial end uses.[15] Aleris has one aluminum rolling facility in Koblenz, Germany that produces aluminum sheet, plate, coils, and other flat-rolled products for various applications. The facility possesses one 160-inch and one 128-inch hot rolling mill, a 148-inch cold rolling mill, and a horizontal-heat-treatment furnace, among other equipment.[16] In addition to the joint venture with Novelis in Neuss, Hydro also operates two other aluminum rolling mills in Grevenbroich and Hamburg, Germany. The facility in Hamburg produces aluminum coil and sheet for general engineering and automotive applications, as well as for heat exchangers, while the facility in Grevenbroich produces aluminum strip for light-weight automobiles, strip and coil for can lids, among other products.[17] The Grevenbroich facility has a total production capacity of 440,000 metric tons (485,016 short tons) per year.[18]

The industry in Canada

Novelis has one aluminum rolling mill in Kingston, Ontario, Canada that produces various flat-rolled aluminum products for marine, transportation, and industrial applications. The Kingston facility also possesses annealing, cold rolling, and finishing equipment. ***.[19] In addition to Novelis, 3M, and PCP Canada also operate aluminum rolling mills in Canada and supply fabricators and other end users with various flat-rolled aluminum products. 3M's

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[14] Novelis, "Novelis Locations," http://novelis.com/about-us/locations/, (accessed September 28, 2018).

[15] Constellium, "Location: Singen, Germany," https://www.constellium.com/singen-germany, (accessed September 28, 2018).

[16] Aleris, "Aleris Rolled Products Germany GmbH: Koblenz, Germany," https://www.aleris.com/locations/aeris-rolled-products-germany-gmbh/, (accessed September 28, 2018).

[17] Hydro, "Hydro Aluminum Rolled Products GmbH, Hamburg," https://www.hydro.com/en/about-hydro/hydro-worldwide/germany/hamburg/hydro-aluminium-rolled-products-gmbh-hamburg/, (accessed October 1, 2018). Hydro, "Grevenbroich," https://www.hydro.com/en/about-hydro/hydro-worldwide/germany/grevenbroich/, (accessed October 1, 2018).

[18] Production capacity data for Hydro's Hamburg facility were not readily available. Ibid.

[19] ***.

aluminum rolling mill produces aluminum MMC (Metal Matrix Composite) sheet used in the nuclear energy industry, while PCP Canada manufactures aluminum sheet and plate used in general manufacturing, automotive, and naval/marine applications, as well as the plastics industry.[20]

Global apparent consumption

Data on global consumption of aluminum flat-rolled products are presented in table VII-10. In 2015, China, the United States, and Germany were the largest consumers of aluminum flat-rolled products, accounting for *** of global consumption, by volume, respectively. During 2011-15, global consumption of aluminum flat-rolled products *** percent.[21]

Table VII-10
Consumption of aluminum flat-rolled products, by country and region, 2011-15

* * * * * * *

Global production

Data on global production of aluminum flat-rolled aluminum products are presented in table VII-11. China, the United States, and Germany were the largest global producers of aluminum flat-rolled products in 2015, accounting for 38.7 percent, 17.6 percent, and 8.0 percent of global production, respectively. During 2011-15, global production of flat-rolled products increased by 20.7 percent.[22]

[20] AluQuebec, "Rolling," https://aluquebec.com/en/transformation-processes/rolling, (accessed October 1, 2018).

[21] Global apparent consumption data beyond 2015 are not readily available.

[22] Global production data beyond 2015 are not readily available.

Table VII-11
Aluminum flat-rolled products: Global production, by country, 2011-15

Producer	Calendar year				
	2011	2012	2013	2014	2015
	Quantity (thousand short tons)				
China	6,694	7,323	8,417	9,480	10,141
United States	4,400	4,506	4,486	4,553	4,614
Germany	2,023	2,044	2,131	2,152	2,093
Japan	1,317	1,286	1,264	1,349	1,393
France	596	595	584	599	594
Italy	497	530	520	530	541
India	430	425	473	500	511
Russia	405	417	428	428	442
Canada	154	154	154	154	154
United Kingdom	120	122	137	137	147
All other	5,079	5,085	5,232	5,539	5,585
Total	21,717	22,488	23,826	25,420	26,217

Note.—Data for 2016-17 are not available. Data include all flat-rolled products, including plate, sheet, strip, and foil.

Source: *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, p. 75.

Production capacity

Data on global aluminum flat-rolled production capacity and capacity utilization are presented in tables VII-12 and VII-13, respectively. China's production capacity for flat-rolled products increased by 86.7 percent during 2011-15, while production capacity in the United States and Germany increased by 6.1 percent and by 2.3 percent, respectively. During 2011-15, global production capacity increased by 32.5 percent.

China's capacity utilization for aluminum flat-rolled products decreased by 14.5 percent during 2011-15, while capacity utilization rates in the United States and Germany remained relatively stable (see table VII-13).[23]

[23] Global production capacity data beyond 2015 are not readily available.

Table VII-12
Aluminum flat-rolled products: Global production capacity, by country, 2011-15

Producer	Calendar year				
	2011	2012	2013	2014	2015
	Quantity (thousand short tons)				
China	8,709	10,490	12,304	14,369	16,262
United States	6,329	6,340	6,363	6,518	6,717
Germany	2,379	2,412	2,412	2,412	2,434
Japan	1,836	1,858	1,792	1,792	1,792
France	670	692	698	714	725
Italy	856	829	829	807	779
India	550	666	735	802	814
Russia	1,133	1,141	1,144	1,144	1,144
Canada	204	204	204	204	205
United Kingdom	128	128	161	161	161
All other	7,243	7,549	7,836	8,375	8,757
Total	30,039	32,309	34,478	37,299	39,791

Note.—Data for 2016-17 are not available. Data include all flat-rolled products, including plate, sheet, strip, and foil.

Source: *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, p. 75.

Table VII-13
Aluminum flat-rolled products: Global production capacity utilization, by country, 2011-15

Producer	Calendar year				
	2011	2012	2013	2014	2015
	Capacity utilization (percent)				
China	77	70	68	66	62
United States	70	71	71	70	69
Germany	85	85	88	89	86
Japan	72	69	71	75	78
France	89	86	84	84	82
Italy	58	64	63	66	69
India	78	64	64	62	63
Russia	36	37	37	37	39
Canada	76	76	76	76	75
United Kingdom	94	96	85	85	91
All other	70	67	67	66	64
Total	72	70	69	68	66

Note.—Data for 2016-17 are not available. Data include all flat-rolled products, including plate, sheet, strip, and foil.

Source: *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, pp. 75-76.

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 57214, December 4, 2017	*Common Alloy Aluminum Sheet From the People's Republic of China: Initiation of Less-Than-Fair-Value and Countervailing Duty Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-12-04/pdf/2017-26068.pdf
82 FR 58025, December 4, 2017	*Common Alloy Aluminum Sheet From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-12-08/pdf/2017-26456.pdf
83 FR 3024 January 22, 2018	*Common Alloy Aluminum Sheet From China*	https://www.gpo.gov/fdsys/pkg/FR-2018-01-22/pdf/2018-01034.pdf
83 FR 14262 April 3, 2018	*Common Alloy Aluminum Sheet From the People's Republic of China: Postponement of Preliminary Determination of the Less-Than-Fair-Value Investigation*	https://www.gpo.gov/fdsys/pkg/FR-2018-04-03/pdf/2018-06723.pdf
83 FR 17651 April 23, 2018	*Common Alloy Aluminum Sheet From the People's Republic of China: Preliminary Affirmative Countervailing Duty (CVD) Determination, Alignment of Final CVD Determination With Final Antidumping Duty Determination, and Preliminary CVD Determination of Critical Circumstances*	https://www.gpo.gov/fdsys/pkg/FR-2018-04-23/pdf/2018-08391.pdf

Citation	Title	Link
83 FR 29088 June 22, 2018	*Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Preliminary Determination of Sales at Less-Than-Fair Value, Preliminary Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*	https://www.gpo.gov/fdsys/pkg/FR-2018-06-22/pdf/2018-13423.pdf
83 FR 33946 July 18, 2018	*Common Alloy Aluminum Sheet From China; Scheduling of the Final Phase of Countervailing Duty and Anti-Dumping Duty Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2018-07-18/pdf/2018-15278.pdf
83 FR 57421 November 15, 2018	*Antidumping Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Affirmative Final Determination of Sales at Less-Than-Fair Value*	https://www.gpo.gov/fdsys/pkg/FR-2018-11-15/pdf/2018-24869.pdf
83 FR 57427 November 15, 2018	*Countervailing Duty Investigation of Common Alloy Aluminum Sheet From the People's Republic of China: Final Affirmative Determination*	https://www.gpo.gov/fdsys/pkg/FR-2018-11-15/pdf/2018-24867.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

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

Subject: Common Alloy Aluminum Sheet from China

Inv. Nos.: 701-TA-591 and 731-TA-1399 (Final)

Date and Time: October 30, 2018 - 9:30 a.m.

Sessions were held in connection with these investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

Petitioner (**John Hermann**, Kelley Drye & Warren LLP)
Respondents (**Jeff Grimson**, Mowry & Grimson, PLLC)

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

Kelley Drye & Warren LLP
Washington DC
on behalf of

Aluminum Association Common Alloy Aluminum Sheet Trade Enforcement Working Group (collectively "the Domestic Industry")

Michael Keown, Executive Vice President, Aleris Corporation
and President, Aleris North America

Christopher Clegg, Executive Vice President, General Counsel,
and Secretary, Aleris Corporation

Patrick Boittiaux, Vice President of Sales, North America
Arconic, Inc.

Lloyd ("Buddy") Stemple, Chief Executive Officer,
Constellium Rolled Products Ravenswood LLC

Paul-Henri Chevalier, President, Jupiter Aluminum Corporation

Lee McCarter, Chief Executive Officer, JW Aluminum Company

Chester Roush, Chief Strategy Officer, JW Aluminum Company

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

Davide Ricci, Director of Sales and Marketing,
Novelis Corporation

John Zanelli, Senior Manager, Novelis Corporation

Heidi Brock, President *and* Chief Executive Officer,
The Aluminum Association

Roxanne Brown, Legislative Director, USW

Brad Hudgens, Economist, Georgetown Economic Services

John M. Herrmann)
Paul C. Rosenthal)
) – OF COUNSEL
Grace W. Kim)
Joshua R. Morey)

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

Mowry & Grimson, PLLC
Washington, DC
on behalf of

National Marine Manufacturers Association
The Recreational Vehicle Industry Association
The National Association of Trailer Manufacturers
C.E. Smith Company, Inc.
A.A. Metals, Inc.
Manakin Industries, LLC

Nicole Vasilaros, Senior Vice President, Government and Legal Affairs
National Marine Manufacturers Association

Michael Ochs, Director, Government Affairs, Recreational Vehicle
Industry Association

William Yeargin, President *and* Chief Financial Officer,
Correct Craft, Inc.

Susan Wheeler, Purchasing Manager, SeaArk Boats

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

Mike Parker, National Sales Director, AA Metals, Inc.

Kit Tam, Inbound Logistics Manager, AA Metals, Inc.

Cara Groden, Senior Economist, Economic Consulting Services, LLC

Marlena Luhr, Staff Economist, Economic Consulting Services, LLC

Jeffrey S. Grimson)
Bryan P. Cenko) – OF COUNSEL
James C. Beaty)

Perkins Coie LLP
Washington, DC
on behalf of

China Nonferrous Metals Industry Association ("CNIA")
(collectively "Chinese Respondents")

Mo Xinda, Director of the Light Metals Department, CNIA

Michael P. House)
) – OF COUNSEL
Shuaiqi Yuan)

Trade Law Defense PLLC
Alexandria, VA
on behalf of

Metal Exchange Corporation ("MEC")

Frank Morgan) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

Petitioner (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
Respondents (**Michael P. House**, Perkins Coie LLP)

APPENDIX C

SUMMARY DATA

Co-extensive single like product: CAAS

Table C-1
CAAS: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	2,015,345	2,065,007	2,184,789	1,118,724	1,145,707	8.4	2.5	5.8	2.4
Producers' share (fn1)	59.9	59.6	54.5	55.9	55.6	(5.4)	(0.3)	(5.1)	(0.3)
Importers' share (fn1):									
China	14.7	14.7	17.9	18.0	12.8	3.2	(0.0)	3.2	(5.2)
Nonsubject sources	25.4	25.7	27.6	26.1	31.6	2.2	0.4	1.8	5.5
All import sources	40.1	40.4	45.5	44.1	44.4	5.4	0.3	5.1	0.3
U.S. consumption value:									
Amount	5,534,113	5,205,480	6,169,209	3,084,040	3,624,105	11.5	(5.9)	18.5	17.5
Producers' share (fn1)	58.8	59.3	55.9	57.5	56.5	(2.8)	0.6	(3.4)	(0.9)
Importers' share (fn1):									
China	13.4	12.6	15.8	15.6	10.9	2.4	(0.7)	3.2	(4.7)
Nonsubject sources	27.9	28.1	28.3	26.9	32.5	0.4	0.2	0.3	5.6
All import sources	41.2	40.7	44.1	42.5	43.5	2.8	(0.6)	3.4	0.9
U.S. imports from:									
China:									
Quantity	296,495	303,270	390,905	201,636	146,707	31.8	2.3	28.9	(27.2)
Value	739,731	656,865	972,825	482,141	396,033	31.5	(11.2)	48.1	(17.9)
Unit value	$2,495	$2,166	$2,489	$2,391	$2,699	(0.3)	(13.2)	14.9	12.9
Ending inventory quantity	68,615	83,128	100,728	92,490	69,288	46.8	21.2	21.2	(25.1)
Nonsubject sources:									
Quantity	511,084	531,436	602,629	292,096	362,197	17.9	4.0	13.4	24.0
Value	1,542,750	1,460,312	1,746,343	829,549	1,179,007	13.2	(5.3)	19.6	42.1
Unit value	$3,019	$2,748	$2,898	$2,840	$3,255	(4.0)	(9.0)	5.5	14.6
Ending inventory quantity	88,337	74,637	77,221	66,811	107,982	(12.6)	(15.5)	3.5	61.6
All import sources:									
Quantity	807,579	834,706	993,534	493,732	508,904	23.0	3.4	19.0	3.1
Value	2,282,481	2,117,177	2,719,168	1,311,690	1,575,041	19.1	(7.2)	28.4	20.1
Unit value	$2,826	$2,536	$2,737	$2,657	$3,095	(3.2)	(10.3)	7.9	16.5
Ending inventory quantity	156,952	157,765	177,949	159,301	177,270	13.4	0.5	12.8	11.3
U.S. producers':									
Average capacity quantity	1,675,550	1,674,300	1,623,622	836,474	848,768	(3.1)	(0.1)	(3.0)	1.5
Production quantity	1,322,116	1,357,023	1,320,581	687,733	701,796	(0.1)	2.6	(2.7)	2.0
Capacity utilization (fn1)	78.9	81.1	81.3	82.2	82.7	2.4	2.1	0.3	0.5
U.S. shipments:									
Quantity	1,207,766	1,230,301	1,191,255	624,992	636,803	(1.4)	1.9	(3.2)	1.9
Value	3,251,632	3,088,303	3,450,041	1,772,350	2,049,064	6.1	(5.0)	11.7	15.6
Unit value	$2,692	$2,510	$2,896	$2,836	$3,218	7.6	(6.8)	15.4	13.5
Export shipments:									
Quantity	121,656	110,008	109,913	50,326	63,037	(9.7)	(9.6)	(0.1)	25.3
Value	426,583	317,511	365,485	161,312	234,796	(14.3)	(25.6)	15.1	45.6
Unit value	$3,506	$2,886	$3,325	$3,205	$3,725	(5.2)	(17.7)	15.2	16.2
Ending inventory quantity	150,504	167,218	186,837	179,839	189,473	24.1	11.1	11.7	5.4
Inventories/total shipments (fn1)	11.3	12.5	14.4	13.3	13.5	3.0	1.2	1.9	0.2
Production workers	5,055	5,005	5,032	4,917	4,921	(0.5)	(1.0)	0.5	0.1
Hours worked (1,000s)	11,131	11,190	11,175	5,665	5,781	0.4	0.5	(0.1)	2.0
Wages paid ($1,000)	324,212	338,942	359,016	177,149	194,055	10.7	4.5	5.9	9.5
Hourly wages (dollars per hour)	$29.13	$30.29	$32.13	$31.27	$33.57	10.3	4.0	6.1	7.3
Productivity (short tons per hour)	118.8	121.3	118.2	121.4	121.4	(0.5)	2.1	(2.6)	(0.0)
Unit labor costs (dollars per short ton)	$245.22	$249.77	$271.86	$257.58	$276.51	10.9	1.9	8.8	7.3
Net sales:									
Quantity	1,329,421	1,340,308	1,301,168	675,318	699,840	(2.1)	0.8	(2.9)	3.6
Value	3,678,215	3,405,815	3,815,525	1,933,660	2,283,860	3.7	(7.4)	12.0	18.1
Unit value	$2,767	$2,541	$2,932	$2,863	$3,263	6.0	(8.2)	15.4	14.0
Cost of goods sold (COGS)	3,434,366	3,098,947	3,585,658	1,779,633	2,058,241	4.4	(9.8)	15.7	15.7
Gross profit or (loss)	243,849	306,868	229,867	154,027	225,619	(5.7)	25.8	(25.1)	46.5
SG&A expenses	178,579	208,643	204,288	100,644	79,148	14.4	16.8	(2.1)	(21.4)
Operating income or (loss)	65,270	98,225	25,579	53,383	146,471	(60.8)	50.5	(74.0)	174.4
Net income or (loss)	(26,969)	18,830	(75,643)	11,842	82,176	180.5	(169.8)	(501.7)	593.9
Capital expenditures	175,069	172,884	186,046	84,941	54,930	6.3	(1.2)	7.6	(35.3)
Unit COGS	$2,583	$2,312	$2,756	$2,635	$2,941	6.7	(10.5)	19.2	11.6
Unit SG&A expenses	$134	$156	$157	$149	$113	16.9	15.9	0.9	(24.1)
Unit operating income or (loss)	$49	$73	$20	$79	$209	(60.0)	49.3	(73.2)	164.8
Unit net income or (loss)	($20)	$14	($58)	$18	$117	186.6	(169.3)	(513.8)	569.6
COGS/sales (fn1)	93.4	91.0	94.0	92.0	90.1	0.6	(2.4)	3.0	(1.9)
Operating income or (loss)/sales (fn1)	1.8	2.9	0.7	2.8	6.4	(1.1)	1.1	(2.2)	3.7
Net income or (loss)/sales (fn1)	(0.7)	0.6	(2.0)	0.6	3.6	(1.2)	1.3	(2.5)	3.0

Notes:

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

Source: Compiled from data submitted in response to Commission questionnaires, and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

Split like product: Brazing stock

Table C-2
Brazing stock: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
China:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
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 per hour)	***	***	***	***	***	***	***	***	***
Productivity (short tons per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***	***	***	***	***
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.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

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

Split like product: CAAS other than brazing stock

Table C-3
CAAS other than brazing stock: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
China:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
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 per hour)	***	***	***	***	***	***	***	***	***
Productivity (short tons per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***	***	***	***	***
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.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, 2018.

Expansion Merchandise: Can stock

Table C-4
Can stock: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	1,565,009	1,490,155	1,585,419	807,901	806,984	1.3	(4.8)	6.4	(0.1)
Producers' share (fn1)	97.5	96.3	94.7	95.1	93.3	(2.8)	(1.1)	(1.6)	(1.9)
Importers' share (fn1):									
China (fn2)	2.1	3.3	3.8	3.5	4.8	1.7	1.3	0.4	1.3
All other sources (fn2)	0.5	0.3	1.5	1.3	1.9	1.0	(0.2)	1.2	0.6
All import sources (fn2)	2.5	3.7	5.3	4.9	6.7	2.8	1.1	1.6	1.9
U.S. consumption value:									
Amount	4,092,896	3,481,277	3,850,529	1,893,503	2,290,160	(5.9)	(14.9)	10.6	20.9
Producers' share (fn1)	97.5	96.3	94.3	94.7	93.3	(3.2)	(1.2)	(2.0)	(1.4)
Importers' share (fn1):									
China (fn2)	2.0	3.3	4.0	3.8	4.6	2.0	1.4	0.7	0.9
All other sources (fn2)	0.5	0.3	1.7	1.5	2.0	1.2	(0.2)	1.3	0.5
All import sources (fn2)	2.5	3.7	5.7	5.3	6.7	3.2	1.2	2.0	1.4
U.S. imports from:									
China (fn2):									
Quantity	32,336	49,866	60,040	28,434	38,703	85.7	54.2	20.4	36.1
Value	81,221	116,118	154,896	71,141	106,471	90.7	43.0	33.4	49.7
Unit value	$2,512	$2,329	$2,580	$2,502	$2,751	2.7	(7.3)	10.8	10.0
Ending inventory quantity	---	---	---	---	---	---	---	---	---
All other sources (fn2):									
Quantity	7,243	4,528	23,803	10,778	15,700	228.6	(37.5)	425.7	45.7
Value	21,302	11,844	64,732	28,996	46,409	203.9	(44.4)	446.6	60.1
Unit value	$2,941	$2,616	$2,720	$2,690	$2,956	(7.5)	(11.1)	4.0	9.9
Ending inventory quantity	---	---	---	---	---	---	---	---	---
All import sources (fn2):									
Quantity	39,579	54,394	83,842	39,212	54,403	111.8	37.4	54.1	38.7
Value	102,523	127,962	219,628	100,137	152,880	114.2	24.8	71.6	52.7
Unit value	$2,590	$2,353	$2,620	$2,554	$2,810	1.1	(9.2)	11.4	10.0
Ending inventory quantity	---	---	---	---	---	---	---	---	---
U.S. producers':									
Average capacity quantity	1,965,780	1,853,002	1,841,268	923,677	928,455	(6.3)	(5.7)	(0.6)	0.5
Production quantity	1,770,747	1,702,964	1,693,275	853,758	839,455	(4.4)	(3.8)	(0.6)	(1.7)
Capacity utilization (fn1)	90.1	91.9	92.0	92.4	90.4	1.9	1.8	0.1	(2.0)
U.S. shipments:									
Quantity	1,525,430	1,435,761	1,501,577	768,689	752,581	(1.6)	(5.9)	4.6	(2.1)
Value	3,990,373	3,353,315	3,630,901	1,793,366	2,137,280	(9.0)	(16.0)	8.3	19.2
Unit value	$2,616	$2,336	$2,418	$2,333	$2,840	(7.6)	(10.7)	3.5	21.7
Export shipments:									
Quantity	265,462	283,526	191,913	89,692	91,049	(27.7)	6.8	(32.3)	1.5
Value	652,720	649,436	512,489	245,345	268,498	(21.5)	(0.5)	(21.1)	9.4
Unit value	$2,459	$2,291	$2,670	$2,735	$2,949	8.6	(6.8)	16.6	7.8
Ending inventory quantity	79,569	63,246	63,031	47,623	47,856	(20.8)	(20.5)	(0.3)	0.5
Inventories/total shipments (fn1)	4.4	3.7	3.7	2.8	2.8	(0.7)	(0.8)	0.0	0.1
Production workers	3,553	3,587	3,570	3,563	3,547	0.5	1.0	(0.5)	(0.4)
Hours worked (1,000s)	7,871	8,407	8,219	5,988	6,090	4.4	6.8	(2.2)	1.7
Wages paid ($1,000)	322,182	375,020	373,521	184,599	187,833	15.9	16.4	(0.4)	1.8
Hourly wages (dollars per hour)	$40.93	$44.61	$45.45	$30.83	$30.84	11.0	9.0	1.9	0.0
Productivity (short tons per hour)	225.0	202.6	206.0	142.6	137.8	(8.4)	(10.0)	1.7	(3.3)
Unit labor costs (dollars per short ton)	$181.95	$220.22	$220.59	$216.22	$223.76	21.2	21.0	0.2	3.5
Net sales:									
Quantity	1,790,892	1,723,323	1,694,616	853,899	839,592	(5.4)	(3.8)	(1.7)	(1.7)
Value	4,643,093	4,103,547	4,572,650	2,266,735	2,628,442	(1.5)	(11.6)	11.4	16.0
Unit value	$2,593	$2,381	$2,698	$2,655	$3,131	4.1	(8.2)	13.3	17.9
Cost of goods sold (COGS)	4,254,934	3,755,979	4,223,698	2,098,756	2,397,922	(0.7)	(11.7)	12.5	14.3
Gross profit or (loss)	388,159	347,568	348,952	167,979	230,520	(10.1)	(10.5)	0.4	37.2
SG&A expenses	109,242	107,998	114,248	53,901	59,126	4.6	(1.1)	5.8	9.7
Operating income or (loss)	278,917	239,570	234,704	114,078	171,394	(15.9)	(14.1)	(2.0)	50.2
Net income or (loss)	(333,008)	103,111	116,665	48,965	107,630	(135.0)	(131.0)	13.1	119.8
Capital expenditures	127,031	146,772	156,655	67,297	43,156	23.3	15.5	6.7	(35.9)
Unit COGS	$2,376	$2,179	$2,492	$2,458	$2,856	4.9	(8.3)	14.4	16.2
Unit SG&A expenses	$61	$63	$67	$63	$70	10.5	2.7	7.6	11.6
Unit operating income or (loss)	$156	$139	$138	$134	$204	(11.1)	(10.7)	(0.4)	52.8
Unit net income or (loss)	($186)	$60	$69	$57	$128	(137.0)	(132.2)	15.1	123.6
COGS/sales (fn1)	91.6	91.5	92.4	92.6	91.2	0.7	(0.1)	0.8	(1.4)
Operating income or (loss)/sales (fn1)	6.0	5.8	5.1	5.0	6.5	(0.9)	(0.2)	(0.7)	1.5
Net income or (loss)/sales (fn1)	(7.2)	2.5	2.6	2.2	4.1	9.7	9.7	0.0	1.9

Notes:

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Imports of can stock presented in this table are all nonsubject out-of-scope expansion merchandise.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.12.3045 and 7606.12.3055 accessed September 21, 2018.

Expanded Like Product: CAAS plus can stock

Table C-5
CAAS and can stock: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	3,580,354	3,555,162	3,770,208	1,926,625	1,952,691	5.3	(0.7)	6.0	1.4
Producers' share (fn1)	76.3	75.0	71.4	72.3	71.2	(4.9)	(1.3)	(3.6)	(1.2)
Importers' share (fn1):									
China (subject)	8.3	8.5	10.4	10.5	7.5	2.1	0.2	1.8	(3.0)
Nonsubject sources (fn2)	15.4	16.5	18.2	17.2	21.3	2.8	1.1	1.7	4.1
All import sources	23.7	25.0	28.6	27.7	28.8	4.9	1.3	3.6	1.2
U.S. consumption value:									
Amount	9,627,009	8,686,757	10,019,739	4,977,543	5,914,265	4.1	(9.8)	15.3	18.8
Producers' share (fn1)	75.2	74.2	70.7	71.6	70.8	(4.6)	(1.1)	(3.5)	(0.9)
Importers' share (fn1):									
China (subject)	7.7	7.6	9.7	9.7	6.7	2.0	(0.1)	2.1	(3.0)
Nonsubject sources (fn2)	17.1	18.3	19.6	18.7	22.5	2.5	1.2	1.3	3.8
All import sources	24.8	25.8	29.3	28.4	29.2	4.6	1.1	3.5	0.9
U.S. imports from:									
China (subject):									
Quantity	296,495	303,270	390,905	201,636	146,707	31.8	2.3	28.9	(27.2)
Value	739,731	656,865	972,825	482,141	396,033	31.5	(11.2)	48.1	(17.9)
Unit value	$2,495	$2,166	$2,489	$2,391	$2,699	(0.3)	(13.2)	14.9	12.9
Ending inventory quantity	68,615	83,128	100,728	92,490	69,288	46.8	21.2	21.2	(25.1)
Nonsubject sources (fn2):									
Quantity	550,663	585,830	686,471	331,308	416,600	24.7	6.4	17.2	25.7
Value	1,645,273	1,588,274	1,965,971	929,686	1,331,887	19.5	(3.5)	23.8	43.3
Unit value	$2,988	$2,711	$2,864	$2,806	$3,197	(4.1)	(9.3)	5.6	13.9
Ending inventory quantity	88,337	74,637	77,221	66,811	107,982	(12.6)	(15.5)	3.5	61.6
All import sources:									
Quantity	847,158	889,100	1,077,376	532,944	563,307	27.2	5.0	21.2	5.7
Value	2,385,004	2,245,139	2,938,797	1,411,827	1,727,921	23.2	(5.9)	30.9	22.4
Unit value	$2,815	$2,525	$2,728	$2,649	$3,067	(3.1)	(10.3)	8.0	15.8
Ending inventory quantity	156,952	157,765	177,949	159,301	177,270	13.4	0.5	12.8	11.3
U.S. producers':									
Average capacity quantity	3,641,330	3,527,302	3,464,890	1,760,151	1,777,223	(4.8)	(3.1)	(1.8)	1.0
Production quantity	3,092,863	3,059,987	3,013,856	1,541,491	1,541,251	(2.6)	(1.1)	(1.5)	(0.0)
Capacity utilization (fn1)	84.9	86.8	87.0	87.6	86.7	2.0	1.8	0.2	(0.9)
U.S. shipments:									
Quantity	2,733,196	2,666,062	2,692,832	1,393,681	1,389,384	(1.5)	(2.5)	1.0	(0.3)
Value	7,242,005	6,441,618	7,080,942	3,565,716	4,186,344	(2.2)	(11.1)	9.9	17.4
Unit value	$2,650	$2,416	$2,630	$2,558	$3,013	(0.8)	(8.8)	8.8	17.8
Export shipments:									
Quantity	387,118	393,534	301,826	140,018	154,086	(22.0)	1.7	(23.3)	10.0
Value	1,079,303	966,947	877,974	406,657	503,294	(18.7)	(10.4)	(9.2)	23.8
Unit value	$2,788	$2,457	$2,909	$2,904	$3,266	4.3	(11.9)	18.4	12.5
Ending inventory quantity	230,073	230,464	249,868	227,462	237,329	8.6	0.2	8.4	4.3
Inventories/total shipments (fn1)	7.4	7.5	8.3	7.4	7.7	1.0	0.2	0.8	0.3
Production workers	8,608	8,592	8,602	8,480	8,468	(0.1)	(0.2)	0.1	(0.1)
Hours worked (1,000s)	19,002	19,597	19,394	11,653	11,871	2.1	3.1	(1.0)	1.9
Wages paid ($1,000)	646,394	713,962	732,537	361,748	381,888	13.3	10.5	2.6	5.6
Hourly wages (dollars per hour)	$34.02	$36.43	$37.77	$31.04	$32.17	11.0	7.1	3.7	3.6
Productivity (short tons per hour)	162.8	156.1	155.4	132.3	129.8	(4.5)	(4.1)	(0.5)	(1.9)
Unit labor costs (dollars per short ton)	$209.00	$233.32	$243.06	$234.67	$247.78	16.3	11.6	4.2	5.6
Net sales:									
Quantity	3,120,313	3,063,631	2,995,784	1,529,217	1,539,432	(4.0)	(1.8)	(2.2)	0.7
Value	8,321,308	7,509,362	8,388,175	4,200,395	4,912,302	0.8	(9.8)	11.7	16.9
Unit value	$2,667	$2,451	$2,800	$2,747	$3,191	5.0	(8.1)	14.2	16.2
Cost of goods sold (COGS)	7,689,300	6,854,926	7,809,356	3,878,389	4,456,163	1.6	(10.9)	13.9	14.9
Gross profit or (loss)	632,008	654,436	578,819	322,006	456,139	(8.4)	3.5	(11.6)	41.7
SG&A expenses	287,821	316,641	318,536	154,545	138,274	10.7	10.0	0.6	(10.5)
Operating income or (loss)	344,187	337,795	260,283	167,461	317,865	(24.4)	(1.9)	(22.9)	89.8
Net income or (loss)	(359,977)	121,941	41,022	60,807	189,806	(111.4)	(133.9)	(66.4)	212.1
Capital expenditures	302,100	319,656	342,701	152,238	98,086	13.4	5.8	7.2	(35.6)
Unit COGS	$2,464	$2,238	$2,607	$2,536	$2,895	5.8	(9.2)	16.5	14.1
Unit SG&A expenses	$92	$103	$106	$101	$90	15.3	12.0	2.9	(11.1)
Unit operating income or (loss)	$110	$110	$87	$110	$206	(21.2)	(0.0)	(21.2)	88.6
Unit net income or (loss)	($115)	$40	$14	$40	$123	(111.9)	(134.5)	(65.6)	210.1
COGS/sales (fn1)	92.4	91.3	93.1	92.3	90.7	0.7	(1.1)	1.8	(1.6)
Operating income or (loss)/sales (fn1)	4.1	4.5	3.1	4.0	6.5	(1.0)	0.4	(1.4)	2.5
Net income or (loss)/sales (fn1)	(4.3)	1.6	0.5	1.4	3.9	4.8	5.9	(1.1)	2.4

Notes:

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Nonsubject sources includes imports (a) of CAAS from sources other than China, (b) of can stock from China, and (c) of can stock from sources other than China.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, and (can stock) HTS reporting numbers 7606.12.3045 and 7606.12.3055 accessed September 21, 2018.

Split and Expanded Like Product: CAAS plus can stock minus brazing stock

Table C-6
CAAS and can stock less brazing stock: Summary data concerning the U.S. market, 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Value=1,000 dollars; Unit values, Unit labor costs (dollars per short ton), and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources (fn2)	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:									
Amount	***	***	***	***	***	***	***	***	***
Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
China	***	***	***	***	***	***	***	***	***
Nonsubject sources (fn2)	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. imports from:									
China:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources (fn2):									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***
Capacity utilization (fn1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Export shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***	***	***	***	***
Productivity (short tons per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***	***	***	***	***
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.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Nonsubject sources includes imports (a) of CAAS other than brazing stock from sources other than China, (b) of can stock from China, and (c) of can stock from sources other than China.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics for HTS statistical reporting numbers 7606.11.3060, 7606.11.6000, 7606.12.3090, 7606.12.6000, 7606.91.3090, 7606.91.6080, 7606.92.3090, and 7606.92.6080, accessed August 22, and (can stock) HTS reporting numbers 7606.12.3045 and 7606.12.3055 accessed September 21, 2018.

Alternative import data: CAAS

Table C-7
CAAS: Apparent consumption and market shares using questionnaire data , 2015-17, January to June 2017, and January to June 2018
(Quantity=short tons; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2015	2016	2017	2017	2018	2015-17	2015-16	2016-17	2017-18
U.S. consumption quantity:									
Amount	1,908,981	1,985,113	2,084,073	1,076,497	1,057,246	9.2	4.0	5.0	(1.8)
Producers' share (fn1)	63.3	62.0	57.2	58.1	60.2	(6.1)	(1.3)	(4.8)	2.2
Importers' share (fn1):									
China	14.3	14.2	16.7	17.1	10.6	2.4	(0.0)	2.5	(6.6)
Nonsubject sources	22.5	23.8	26.1	24.8	29.2	3.7	1.3	2.4	4.4
All import sources	36.7	38.0	42.8	41.9	39.8	6.1	1.3	4.8	(2.2)
U.S. producers' U.S. shipments	1,207,766	1,230,301	1,191,255	624,992	636,803	(1.4)	1.9	(3.2)	1.9
U.S. imports from:									
China	272,284	282,551	347,921	184,597	111,731	27.8	3.8	23.1	(39.5)
Nonsubject sources	428,931	472,261	544,897	266,908	308,712	27.0	10.1	15.4	15.7
All import sources	701,215	754,812	892,818	451,505	420,443	27.3	7.6	18.3	(6.9)

Notes:

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

Source: Compiled from data submitted in response to Commission questionnaires. Questionnaire data understate slightly import volumes due to coverage.

APPENDIX D

DOMESTIC LIKE PRODUCT CONSIDERATIONS -- NARRATIVES

Tables D-1 and D-2 present U.S. producers' and U.S. purchasers' responses regarding the comparability of brazing stock and other in-scope CAAS.

Table D-1
CAAS: U.S. producers' narratives on the comparability impact for brazing stock vs other in-scope CAAS

Item / Firm	Narrative
Brazing vs other in-scope CAAS: Physical characteristics	
***	Similar ranges of gauge, width, and core alloys. Largely produced in the same production facilities
***	Similar production routing but different physical properties
Brazing vs other in-scope CAAS: Interchangeability	
***	Not interchangable. Brazing stock is mainly Clad while CAAS is mainly un-clad
Brazing vs other in-scope CAAS: Manufacturing	
***	The main difference is that brazing requires clading station. The rest of the rolling and finishing process is similar to CAAS
***	Use of the same assets
Brazing vs other in-scope CAAS: Channels	
***	Brazing and CAAS use the same distribution channels.
***	Some sales to OEM's or distribution similar to CAAS
Brazing vs other in-scope CAAS: Perceptions	
***	Our marketing strategy has been similar for both markets: not align pricing to the low price established by imports, even though this resulted in a reduction of our market share.
Brazing vs other in-scope CAAS: Price	
***	The conversion revenue of Brazing stock and all other in scope CAAS have both gone down over the period, despite our strategy to abdicate volume by not matching the low priced imports.
***	Sold into higher price end markets

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

Table D-2
CAAS: U.S. purchasers' narratives on the comparability impact for brazing stock vs other in-scope CAAS

Item / Firm	Narrative
Brazing vs other in-scope CAAS: Physical characteristics	
***	CKNA alloys are uniquely engineered for our applications.
***	Similar raw materials but usage and applications are different.
Brazing vs other in-scope CAAS: Interchangeability	
***	CKNA alloys are uniquely engineered for our applications.
***	Similar raw materials different characteristics required to fulfil manufacturing requirements.
Brazing vs other in-scope CAAS: Manufacturing	
***	Unkown at this time.
***	Clad material requires special equipment.
Brazing vs other in-scope CAAS: Channels	
***	While similar in the actual distribution of material most domestic suppliers will not warehouse and provide product on consignment DDP.
***	Sold directly
Brazing vs other in-scope CAAS: Perceptions	
***	While similar domestic suppliers cannot produce at their plants in the US heat exchange product.
***	Mostly identical
***	Brazing is mostly sold directly to end users for specific applications as opposed to common alloy which is sold through distributors and service centers.
Brazing vs other in-scope CAAS: Price	
***	While somewhat compariable it is typically their fabrication cost, delivery terms and specifications that cause us to source as we do.
***	Price difference between clad and unclad material

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

Tables D-3 and D-4 present U.S. producers' and U.S. purchasers' responses regarding the comparability of can stock and in-scope CAAS.

Table D-3
CAAS: U.S. producers' narratives on the comparability impact for can stock vs other in-scope CAAS

Item / Firm	Narrative
Can stock vs CAAS: Physical characteristics	
***	Highly specialized product (alloy,gauges,coatings) for specific aluminum can fabrication
***	Stringent forming requirements and the use of lubrication
Can stock vs CAAS: Interchangeability	
***	Highly specialized product (alloy,gauges,coatings) for specific aluminum can fabrication
Can stock vs CAAS: Manufacturing	
***	Requires specific gauge capabilities and tolerances. Also requires specific coating applications
***	Some of the upstream assets and some of the downstream assets are specific to can stock production
Can stock vs CAAS: Channels	
***	Can stock is 100 percent end users and not sold in the other distribution channels.
***	Can sold to 5 large manufactures
Can stock vs CAAS: Perceptions	
***	Different end uses
Can stock vs CAAS: Price	
***	Competition took common alloy to can pricing

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

Table D-4
CAAS: U.S. purchasers' narratives on the comparability impact for can stock vs CAAS

Item / Firm	Narrative
Can stock vs CAAS: Physical characteristics	
***	Too thin. Inadequate strength & mechanical characteristics.
***	Mill dependent if sourcing available
***	The alloy and temper of can stock is not desirable for the marine market
Can stock vs CAAS: Interchangeability	
***	Too thin. Inadequate strength & mechanical characteristics.
***	Mill dependent if sourcing available
Can stock vs CAAS: Manufacturing	
***	Production processes can be interchangeable with equipment modifications.
***	1XXX, 3XXX and 5XXX Alloys DC production CAAS and aluminum can stock are both manufactured at DC rolling mills (i.e. same facilities) from similar inputs on the same machinery and equipment, using the same employees.
Can stock vs CAAS: Channels	
***	Can stock is generally not available through service centers/distributors.
***	Aluminum can stock is almost always sold direct to end users, while CAAS is sold both direct to end users and through wholesalers/distributors.
Can stock vs CAAS: Perceptions	
***	The can industry is very different from the industries served with CAAS. There is no cross over discussion between customers.
***	Aluminum can stock is generally sold under long term contracts, while CAAS is sold under both long term and short term contracts.
***	Can stock is a completely different product from the more general grades of common alloy aluminum.
Can stock vs CAAS: Price	
***	Mills undercharge on can sheet (much higher spec product) and over charge on CAAS (much lower spec product). Reasons are based around mill strategy, base loading of rolling mills and buying power of OEM fillers and beverage can manufacturers.
***	Due to the significant increase in the price of CAAS in 2018, some domestic producers are in the process of shifting production capacity from aluminum can stock to CAAS, demonstrating the pricing influence and comparability.

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

APPENDIX E

ADDITIONAL INFORMATION ON BRAZING STOCK

Tables E-1 and E-2 present U.S. imports of brazing stock and for CAAS less brazing stock, respectively, in the most recent 12-month period for which data are available that precedes the institution of the investigations.

Table E-1
CAAS: U.S. imports of brazing stock, December 2016 through November 2017

Item	Dec 2016 through Nov 2017	
	Quantity (short tons)	Share quantity (percent)
U.S. imports from.--		
China	***	***
Nonsubject sources	***	***
All import sources	***	***

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

Table E-2
CAAS: U.S. imports of CAAS less brazing stock, December 2016 through November 2017

Item	Dec 2016 through Nov 2017	
	Quantity (short tons)	Share quantity (percent)
U.S. imports from.--		
China	***	***
Nonsubject sources	***	***
All import sources	***	***

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

Table E-3 presents information on brazing stock operations of the two responding producers and exporters in China. Table E-4 presents information on CAAS less brazing stock operations of the responding producers and exporters in China.

Table E-3
CAAS: Data on industry for brazing stock in China, 2015-17, January to June 2017, and January to June 2018 and projection calendar years 2018 and 2019

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2015	2016	2017	2017	2018	2018	2018
	Quantity (short tons)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
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	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
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	***	***	***	***	***	***	***

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

Table E-4
CAAS: Data on industry for CAAS less brazing stock in China, 2015-17, January to June 2017, and January to June 2018 and projection calendar years 2018 and 2019

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2015	2016	2017	2017	2018	2018	2019
	Quantity (short tons)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
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	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
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	***	***	***	***	***	***	***

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

APPENDIX F

NONSUBJECT COUNTRY PRICE DATA

Three importers, ***, reported price data for Canada for products 1-7. Price data reported by these firms accounted for 0.9 percent of U.S. commercial shipments from Canada in 2017. These price items and accompanying data are comparable to those presented in tables V-3 to V-10. Price and quantity data for Canada are shown in tables F-1 to F-7 and in figures F-1 to F-7 (with domestic and subject sources).

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Canada were lower than prices for U.S.-produced product in six instances and higher in 92 instances. In comparing Canadian pricing data with Chinese pricing data, prices for product imported from Canada were higher in 98 instances. No data was reported for Product 8 by Chinese or Canadian importers. A summary of price differentials is presented in table F-8.

Table F-1

CAAS: Weighted-average f.o.b. prices and quantities of imported product 1,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.50	2,175,815	***	***
Apr.-Jun.	1.42	2,146,691	***	***
Jul.-Sep.	1.25	2,135,010	***	***
Oct.-Dec.	1.20	2,270,201	***	***
2016:			***	***
Jan.-Mar.	1.21	3,385,031		
Apr.-Jun.	1.22	2,428,889	***	***
Jul.-Sep.	1.22	2,945,275	***	***
Oct.-Dec.	1.24	1,743,876	***	***
2017:			***	***
Jan.-Mar.	1.30	1,906,933		
Apr.-Jun.	1.39	1,984,388	***	***
Jul.-Sep.	1.39	1,813,039	***	***
Oct.-Dec.	1.48	1,529,988	***	***
2018:			***	***
Jan.-Mar.	1.55	2,125,098		
Apr.-Jun.	1.63	1,975,004	***	***

[1] Product 1: Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide.

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

Table F-2

CAAS: Weighted-average f.o.b. prices and quantities of imported product 2,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.52	1,705,128	***	***
Apr.-Jun.	1.45	2,044,402	***	***
Jul.-Sep.	1.28	1,835,047	***	***
Oct.-Dec.	1.21	2,386,441	***	***
2016:			***	***
Jan.-Mar.	1.21	2,586,887		
Apr.-Jun.	1.23	2,207,840	***	***
Jul.-Sep.	1.24	2,054,220	***	***
Oct.-Dec.	1.25	1,429,577	***	***
2017:			***	***
Jan.-Mar.	1.31	2,047,719		
Apr.-Jun.	1.40	2,190,236	***	***
Jul.-Sep.	1.39	1,757,259	***	***
Oct.-Dec.	1.47	1,481,974	***	***
2018:			***	***
Jan.-Mar.	1.50	1,812,387		
Apr.-Jun.	1.64	1,306,059	***	***

[1] Product 2: Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide.

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

Table F-3

CAAS: Weighted-average f.o.b. prices and quantities of imported product 3,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.56	3,357,812	***	***
Apr.-Jun.	1.44	3,247,838	***	***
Jul.-Sep.	1.30	4,286,210	***	***
Oct.-Dec.	1.24	3,397,754	***	***
2016:			***	***
Jan.-Mar.	1.24	4,455,537		
Apr.-Jun.	1.22	3,950,802	***	***
Jul.-Sep.	1.25	3,907,345	***	***
Oct.-Dec.	1.27	3,325,962	***	***
2017:			***	***
Jan.-Mar.	1.35	3,706,395		
Apr.-Jun.	1.41	3,740,618	***	***
Jul.-Sep.	1.39	2,944,668	***	***
Oct.-Dec.	1.49	2,673,943	***	***
2018:			***	***
Jan.-Mar.	1.54	3,184,371		
Apr.-Jun.	1.66	3,504,275	***	***

[1] Product 3: Alloy 5052, H-32 temper, 0.125 inch thickness, 48 inches wide.

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

Table F-4

CAAS: Weighted-average f.o.b. prices and quantities of imported product 4,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.51	4,308,669	***	***
Apr.-Jun.	1.45	3,455,502	***	***
Jul.-Sep.	1.30	3,874,437	***	***
Oct.-Dec.	1.23	3,345,990	***	***
2016:			***	***
Jan.-Mar.	1.22	3,891,455		
Apr.-Jun.	1.25	3,632,530	***	***
Jul.-Sep.	1.24	3,924,578	***	***
Oct.-Dec.	1.23	3,090,394	***	***
2017:			***	***
Jan.-Mar.	1.33	3,578,020		
Apr.-Jun.	1.39	3,857,585	***	***
Jul.-Sep.	1.38	3,264,002	***	***
Oct.-Dec.	1.48	3,197,202	***	***
2018:			***	***
Jan.-Mar.	1.52	3,270,074		
Apr.-Jun.	1.64	3,234,656	***	***

[1] Product 4: Alloy 5052, H-32 temper, 0.125 inch thickness, 60 inches wide.

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

Table F-5

CAAS: Weighted-average f.o.b. prices and quantities of imported product 5,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.52	636,325	***	***
Apr.-Jun.	1.38	559,661	***	***
Jul.-Sep.	1.17	574,746	***	***
Oct.-Dec.	1.17	679,145	***	***
2016:			***	***
Jan.-Mar.	1.15	766,532		
Apr.-Jun.	1.12	508,388	***	***
Jul.-Sep.	1.18	547,693	***	***
Oct.-Dec.	1.19	590,731	***	***
2017:			***	***
Jan.-Mar.	1.28	427,865		
Apr.-Jun.	1.37	493,262	***	***
Jul.-Sep.	1.35	543,963	***	***
Oct.-Dec.	1.38	480,985	***	***
2018:			***	***
Jan.-Mar.	1.52	653,350		
Apr.-Jun.	1.59	368,162	***	***

[1] Product 5: Alloy 3003, H-14 temper, 0.090 inch thickness, 48 inches wide.

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

Table F-6

CAAS: Weighted-average f.o.b. prices and quantities of imported product 6,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.47	671,494	***	***
Apr.-Jun.	1.35	826,711	***	***
Jul.-Sep.	1.21	1,062,417	***	***
Oct.-Dec.	1.15	934,174	***	***
2016:				
Jan.-Mar.	1.15	1,244,674	***	***
Apr.-Jun.	1.18	1,495,951	***	***
Jul.-Sep.	1.17	1,113,027	***	***
Oct.-Dec.	1.20	1,061,191	***	***
2017:				
Jan.-Mar.	1.28	1,137,095	***	***
Apr.-Jun.	1.34	1,103,328	***	***
Jul.-Sep.	1.34	814,133	***	***
Oct.-Dec.	1.42	737,136	***	***
2018:				
Jan.-Mar.	1.47	854,228	***	***
Apr.-Jun.	1.59	1,013,483	***	***

[1] Product 6: Alloy 3003, H-14 temper, 0.125 inch thickness, 48 inches wide.

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

Table F-7

CAAS: Weighted-average f.o.b. prices and quantities of imported product 7,[1] by quarters, January 2015 through June 2018

Period	United States		Canada	
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)
2015:				
Jan.-Mar.	1.48	567,743	***	***
Apr.-Jun.	1.34	1,021,805	***	***
Jul.-Sep.	1.20	714,105	***	***
Oct.-Dec.	1.17	715,630	***	***
2016:			***	***
Jan.-Mar.	1.14	1,057,179		
Apr.-Jun.	1.17	1,103,163	***	***
Jul.-Sep.	1.17	1,126,091	***	***
Oct.-Dec.	1.19	883,307	***	***
2017:			***	***
Jan.-Mar.	1.29	1,024,118		
Apr.-Jun.	1.37	767,409	***	***
Jul.-Sep.	1.35	562,938	***	***
Oct.-Dec.	1.44	545,801	***	***
2018:			***	***
Jan.-Mar.	1.49	940,922		
Apr.-Jun.	1.59	673,232	***	***

[1] Product 7: Alloy 3003, H-14 temper, 0.125 inch thickness, 60 inches wide.

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

Figure F-1

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarters, January 2015 through June 2018

* * * * * * *

Figure F-2

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by quarters, January 2015 through June 2018

* * * * * * *

Figure F-3

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by quarters, January 2015 through June 2018

* * * * * * *

Figure F-4

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 4, by quarters, January 2015 through June 2018

* * * * * * *

Figure F-5

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 5, by quarters, January 2015 through June 2018

* * * * * * *

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Figure F-6

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 6, by quarters, January 2015 through June 2018

* * * * * * *

Figure F-7

CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 7, by quarters, January 2015 through June 2018

* * * * * * *

Table F-8

CAAS: Summary of higher/(lower) unit values for nonsubject price data, by source, January 2015 through June 2018

Comparison	Total number of comparisons	Lower		Higher	
		Number of quarters	Quantity (pounds)	Number of quarters	Quantity (pounds)
Nonsubject vs United States:					
Canada vs. United States	98	6	985,558	92	9,548,160
Nonsubject vs subject countries:					
Canada vs. China	98	---	---	98	10,533,718

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

APPENDIX G

ADDITIONAL PURCHASER DATA

Table G-1
Brazing stock: Purchasers' responses to puchasing patterns

Purchaser	Purchases and imports in 2015-17 (short tons)			Change in domestic share[2] (pp, 2015-17)	Change in subject country share[2] (pp, 2015-17)
	Domestic	Subject	All other[1]		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	159,655	2,107	35,953	(1.7)	0.3

[1] Includes all other sources and unknown sources.
[2] Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

Table G-2
CAAS other than brazing stock: Purchasers' responses to purchasing patterns

Purchaser	Purchases and imports in 2015-17 (short tons)			Change in domestic share[2] (pp, 2015-17)	Change in subject country share[2] (pp, 2015-17)
	Domestic	Subject	All other[1]		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
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***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	1,113,641	570,142	672,973	(5.5)	(0.1)

[1] Includes all other sources and unknown sources.
[2] Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

Table G-3
Brazing stock: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased subject imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity (short tons)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
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***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--2; No--21	Yes--1; No--5	Yes--2; No--0	***	

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

Table G-4
CAAS other than brazing stock: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity purchased instead of domestic (short tons)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
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***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued on next page.

Table G-4–Continued
CAAS other than brazing stock: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity purchased instead of domestic (short tons)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--22; No--11	Yes--21; No--2	Yes--16; No--5	189,429	

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

APPENDIX H

COMMENTS ON THE EFFECT OF SECTION 232 ALUMINUM PROCEEDINGS

Appendix H presents data on firms' narratives on the impact of the announcement of the section 232 aluminum investigation in April 2017 and the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018.

Table H-1
CAAS: Firms' narratives on the impact of the announcement of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. producers		
***	No	---
***	No	---
***	No	---
***	Yes	This further impacted CAAS as duties were imposed on the import of ingot used for CAAS from Canada which is the major importer of ingot for the CAAS market.
***	Yes	Customers who had taken a strong import strategy of low priced imports from China began coming to us requesting additional volume and/or requesting more volume during the next contract period. These customers were well informed of tariffs.
***	Yes	While the announcement could not clearly be evaluated in terms of financial impact on the market (price levels…), it created some confusion and anxiety. Suppliers and vendors started seeing US sourcing as being a safer bet than sourcing abroad.
***	No	No significant impact on *** business
***	Yes	*** is the only North American rolled aluminum supplier with a plant in Canada
***	No	---
***	Yes	Initially improved market conditions
U.S. importers		
***	No	---
***	No response	---
***	Yes	Mills are sold out - they will not sell us any longer due to capacity constraints
***	No	---
***	Yes	More difficult to get material

Table continued on next page.

Table H-1–Continued
CAAS: Firms' narratives on the impact of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. importers		
***	Yes	Aluminum costs began to slowly climb. Scrap value remained mostly steady.
***	No	---
***	Yes	Because of the import tariffs we had to increase our prices. Since then we are less competitive compared to US mills, but unchanged competitiveness compared to all other foreign mills.
***	No response	---
***	No	---
***	Yes	Tighter capacity due to rush to buy
***	Yes	Canadian competition benefited due to no tariffs paid on imported product
***	Yes	Yes, led to looking for alternate suppliers
***	No	---
***	No	---
***	Yes	Increase of demand
***	Yes	price increases
***	No	---
***	Yes	Requested domestic supplier to continue production but supplier refused
***	No	---
***	No	---
***	No	---
***	Yes	Global competitive landscape changed
***	Yes	Limited US capacity for Brazing Sheets drove pricing and lead times up.
***	Yes	Limited US Capacity for Brazing Sheet drove pricing and lead times up.

Table continued on next page.

Table H-1–Continued
CAAS: Firms' narratives on the impact of the announcement of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. importers		
***	Yes	---
***	Yes	Prices went up and availability was reduced
***	No	---
***	Yes	While the announcement could not clearly be evaluated in terms of financial impact on the market (price levels…), it created some confusion and anxiety. Suppliers and vendors started seeing US sourcing as being a safer bet than abroad sourcing.
***	No	No significant impact on *** business
***	Yes	Tariffs distort economical flow of business. Reward the inefficient.
***	No	Unsure of future market conditions
***	Yes	Some customers were more cautious when purchasing internationally produced CAAS, recognizing the potential for import tariffs.
***	No	---
***	Yes	Caused prices domestic and abroad to increase
***	Yes	Investigation initiated by Trump
***	No	---
***	Yes	***
***	No response	---
***	Yes	Increased price and reduced supply
***	Yes	Prices increased and less Chinese CAAS started to be available in the market
***	Yes	Price went up and scarcity of product
***	No	---
***	Yes	prices rose
***	No response	---

Table continued on next page.

Table H-1–Continued
CAAS: Firms' narratives on the impact of the announcement of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. importers		
***	No	---
***	Yes	Less Chinese supply (dumping)
***	Yes	Prices increased significantly
***	No	---
U.S. purchasers		
***	No response	---
***	No	---
***	No	---
***	No	---
***	No	---
***	No	---
***	Yes	Since the announcement of Section 232 our organization have activity looked into domestic channels of supply. Our findings is that the domestic mills are at booked capacity.
***	Yes	All aluminum supply decreased, causing prices to increase.
***	No response	---
***	Yes	Requested domestic supplier to continue production but supplier refused
***	No response	---
***	No response	---
***	Yes	Not immediately. Although there was a steady increase in the LME since the announcement, as fear over what the impact of the vague (at the time) action would lead to in terms of global availability of CAAS. The impact on the conditions of competition resulted in a competitiveness issue for Aluminum generally. The case was starting to be built for possible substitution out of the metal as overall purchased unit costs started to go up.
***	Yes	Prices began to rise

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Table H-1–Continued
CAAS: Firms' narratives on the impact of the announcement of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. purchasers		
***	Yes	No real impact in April 2017. There was an impact on or about Nov 28th 2017 when the DOC self-initiated...force majeure resulted in cancelled shipments from Chinese suppliers, significant price increases, and shortages began to emerge.
***	Yes	supply began to tighten/less material available
***	No	Unsure of future market conditions
***	Yes	Some customers were more cautious when purchasing internationally produced CAAS, recognizing the potential for import tariffs.
***	Yes	raised costs of imported aluminum
***	Yes	Prices increased, availability reduced, capacity reduced, lead times increased
***	No	---
***	No	The investigation did not automatically impact the market from my perspective. It made everyone aware of what was bring investigated, but the impact was not felt until later
***	Yes	Created nervous market conditions which reduced inventories and increased prices
***	Yes	Cost our business a great deal of money and negatively impacted our hiring - we are less likely to hire with the new tariff
***	Yes	We were fine keeping the Chinese mills out of the US as they don't play by the same "rules" as the rest of us, but with Section 232 we saw producers that we expected to pick up some of that slack being hindered by fears of a quota and/or tariff. Also, there is an opinion shared by some that exclusions shouldn't be granted to some and not others. You either pay the tariff or don't import the product. Granting an exclusion to one company puts everyone else who had imported the same product at a disadvantage!
***	No response	---
***	No	---
***	Yes	Prices increased and less Chinese CAAS started to be available in the market

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Table H-1–Continued
CAAS: Firms' narratives on the impact of the section 232 aluminum investigation in April 2017

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. purchasers		
***	Yes	Supply/demand – supply started tightening while demand is increasing and prices increased
***	No	---
***	Yes	Pricing increases/ availability./ Allocation
***	Yes	Price increases
***	No	---
***	Yes	---
***	Yes	Market prices increased and US mills controlled order acceptance

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

Table H-2
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. producers		
***	Yes	We received higher number of inquiries for non core products.
***	Yes	Issuance made the CAAS raw material that *** buys more expensive (through an increase in the MWP - this is a metal pass through) and has the potential to slow our sales to Canada due to their retaliatory duties
***	No	---
***	Yes	CAAS AD/CVD progress so far has seen "market pricing" improve. However, 85 percent of *** 2018 business is under contract so we have not yet seen improvement in pricing.
***	Yes	All customers now, whether they were aware in April 2017 or not, realized the gravity of the situation and those who had taken a strong import strategy of low priced imports from China came to us requesting additional volume and/or requesting more volume during the next contract period.
***	Yes	Same as above.
***	No	No significant impact on *** business
***	Yes	Importing metal
***	No	---
***	Yes	Initially improved market conditions
U.S. importers		
***	Yes	The 232 tariffs have only increased market uncertainty and pricing, further tightening the shortage in CAAS supply.
***	No response	---
***	Yes	It is really hurting a small to mid-size company who cannot purchase domestic DC Cast common alloy products
***	No	---
***	Yes	Our cost increased 40 percent and there is no available supply from domestic sources.
***	Yes	Domestic prices dramatically increased. Scrap value has dropped.
***	Yes	Price Increase, Domestic Supply Became Scarce.
***	No	---
***	No response	---

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Table H-2–Continued
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. importers		
***	No	---
***	Yes	Tighter capacity due to rush to buy
***	Yes	Canadian competition benefited due to no tariffs paid on imported product
***	Yes	Reduced amount of CAAS from China
***	Yes	We had to increase pricing to our customers. They had to either pass on the price increase to their client or live with reduced profit margins.
***	No	---
***	Yes	Increase of demand
***	Yes	price increases
***	Yes	Domestic price soared
***	Yes	Requested domestic supplier to continue production but supplier refused
***	No	---
***	No	---
***	Yes	Effective our raw material imports from own company in Canada and our Sales price to Customers and our profit margin
***	Yes	Increased perception of "scarcity" among aluminum buyers.
***	Yes	Global competitive landscape changed
***	Yes	More competition for limited capacity at us producer
***	Yes	More competition for limited capacity at us producers.
***	Yes	---
***	Yes	Prices went up and availability was reduced.
***	Yes	Created total upheaval in our industry and animosity between end users and manufacturer/fabricator companies who were expected to hold pricing on future projects. Larger manufacturers with deep inventories faired better than smaller ones as the smaller ones were impacted by rising costs sooner.
***	Yes	Same as above.

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Table H-2–Continued
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. importers		
***	Yes	Tariffs distort economical flow of business. Reward the inefficient.
***	Yes	Eliminated supply from certain countries
***	Yes	Due to the limited availability of domestically produced CAAS, customers accepted the increased cost (due to the imposition of the tariffs) on internationally produced CAAS.
***	Yes	Midwest premium increased dramatically and overall market price went up due to shortages
***	Yes	Caused prices domestic and abroad to increase
***	Yes	Trump sign 232. 10 percent additional tariff on Aluminum.
***	No	---
***	Yes	Importing metal
***	No response	---
***	Yes	Increased price and reduced supply
***	Yes	Prices increased and less Chinese CAAS started to be available in the market
***	Yes	Price increase
***	Yes	Our competition has factories outside of the US so they are able to bring in finished goods to be sold directly to the end user with out having to pay the duties on the component piece of the product which is CAAS. This issue is greater than China.
***	Yes	prices rose, tariff share or pass-through
***	No response	---
***	Yes	Domestic suppliers' capacity is strained. Suppliers' lead times have increased.
***	Yes	Less Chinese supply (dumping)
***	Yes	There is a significant decline in U.S. capacity available for specialty products
***	Yes	No more imports

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Table H-2–Continued
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. purchasers		
***	No response	---
***	Yes	Significantly increased the Midwest Premium while scrap rates remained the same so domestic mills were able to become very profitable. They also profiteer from this since all domestic mills announced price increases and took advantage of the situation.
***	Yes	Prices of CAAS increased dramatically
***	Yes	With the Trade case and 232 China basically out of market and domestic players have limited tonnage available.
***	Yes	Price Increase, Domestic Supply Became Scarce.
***	Yes	Current tariff environment has caused our suppliers to no quote RFQs or increase pricing dramatically due to uncertainties
***	Yes	Same as table H-1.
***	Yes	Same as table H-1.
***	No response	---
***	Yes	Requested domestic supplier to continue production but supplier refused
***	No response	---
***	Yes	Price of Midwest Metals Premium Increase
***	Yes	A dramatic change in premium costs occurred at this time, as the 10 percent duty was levied against the primary aluminum materials used to produce CAAS. This resulted in a $0.10/lb. jump in premium (which normalizes at $0.10/lb. under normal circumstances). This further exacerbated the potential risk of Aluminum substitution due to increases in overall unit costs. However, in addition, because the Section 232 was implemented after the AD/CVD action against China (which had already caused a significant redistribution of CAAS lbs. across remaining US and offshore mill capacity) the field of available capacity was redistributed again as capacity was moved (wherever possible) to non tariffed capacity, i.e. US mills. This pushed US mills to overcapacity and forced domestic pricing upward and availability downward. Additional demand then had to be sourced offshore from tariffed countries who saw the demand and, knowing there was no further US competition available, started to raise prices. Therefore, now we effectively have a global deficit in CAAS capacity with a 12-18 month window to changing that. All prices have gone up approx. 50-60 percent and supply chains are more unstable and volatile than they have ever been. Supply security is now a significant risk factor.

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Table H-2–Continued
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. purchasers		
***	Yes	Prices began to rise in preparation of tariffs
***	Yes	Domestics covered some our of needs for 2018 early then capacity was filled for the year by ~June. They then began no quoting on the balance of 2018.
***	Yes	pricing soared/capacity constrained/availability of material is limited--domestic & foreign
***	Yes	Eliminated supply from certain countries
***	Yes	Due to the limited availability of domestically produced CAAS, customers accepted the increased cost (due to the imposition of the tariffs) on internationally produced CAAS.
***	Yes	raised costs of imported aluminum
***	Yes	Prices increased, availability reduced, capacity reduced, lead times increased
***	Yes	Domestic producers increased their prices and the offshore producers increased their prices.
***	Yes	Pricing went up rapidly and domestic capacity began to come very scarce. The market changed almost overnight due to tariffs being applied to all foreign aluminum
***	Yes	Reduced availability of CAAS overall, which in turn drove prices for domestically produced upwards
***	Yes	Cost our business a great deal of money and negatively impacted our hiring - we are less likely to hire with the new tariff
***	Yes	Same as above, but I would also add that the Sanctions on Russian companies and individual have created some challenges as well and has been viewed as vague. As an example some of our trading partners feel that plate or bar made from Rusal primary aluminum is no longer subject to the sanction because of "substantial transformation" has occurred, however other producers disagree and believe that any downstream product produced from Rusal primary is still subject to sanctions. So, a lot of confusion or at least alternate interpretations!
***	No response	---
***	Yes	Domestic Mill capacity tightened further. Off contract domestic purchase costs increased
***	Yes	Prices increased and less Chinese CAAS started to be available in the market

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Table H-2–Continued
CAAS: Firms' narratives on the impact of the issuance of proclamations on certain imported aluminum products beginning in March 2018

Firm	Impact conditions of competition for CAAS (Y/N)	If yes, additional information
U.S. purchasers		
***	Yes	Same as table H-1.
***	Yes	Pricing Increases/ Availability/ Allocation
***	Yes	Prices continues to rise with supply from foreign sources being reduced
***	Yes	We saw an immediate increase in cost of 30 percent for all aluminum products
***	Yes	Yes this was 10 percent duty that was applied to the raw aluminum, the duty was incorporated into the MWP (increasing the MWP) that we pay on the aluminum.
***	Yes	Market prices increased and US mills controlled order acceptance

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