Common Alloy Aluminum Sheet from China

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

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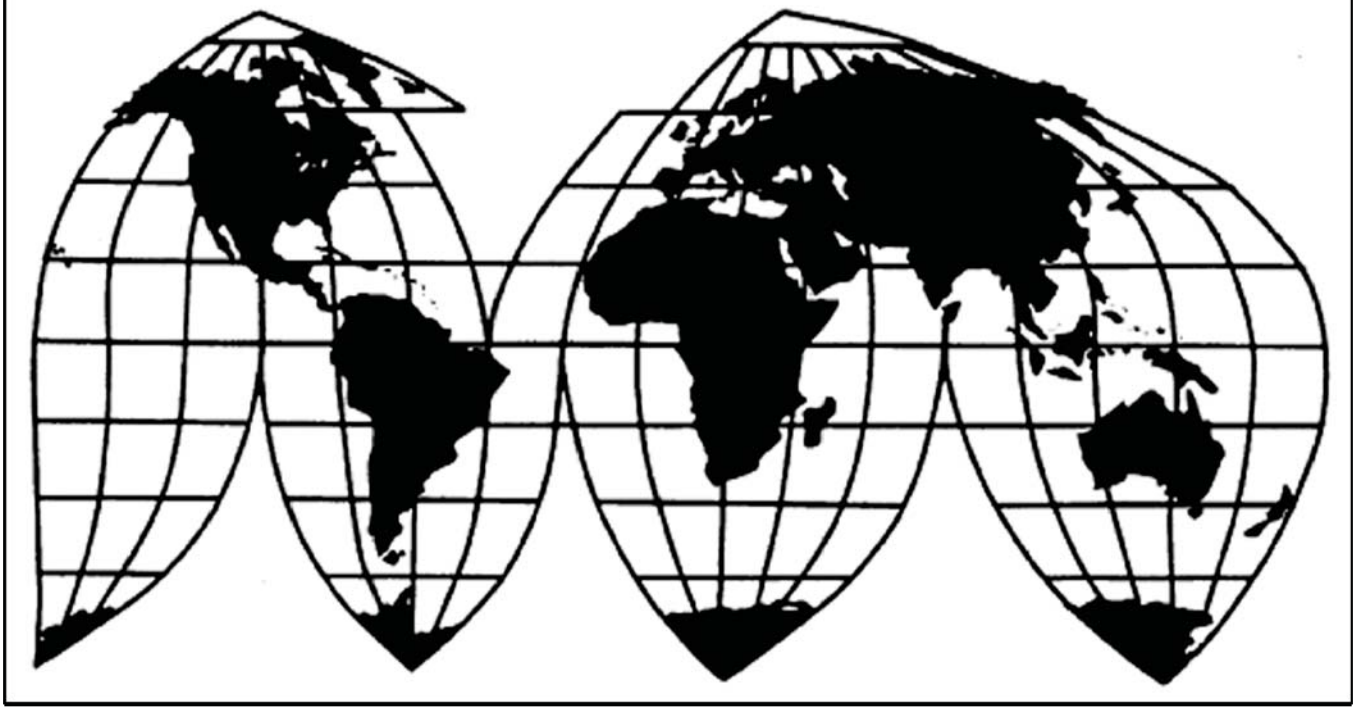
U.S. International Trade Commission



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U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

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

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 there is a reasonable indication 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 are alleged to be sold in the United States at less than fair value ("LTFV") and to be subsidized by the government of China.

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

BACKGROUND

These investigations were instituted, pursuant to sections 703(a) and 733(a) of the Tariff Act of 1930 (19 U.S.C. 1671b(a) and 1673b(a)), 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.

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice

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

in the *Federal Register* of December 8, 2017 (82 FR 58025). The conference was held in Washington, DC, on December 21, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of common alloy aluminum sheet ("CAAS") from China that are allegedly sold in the United States at less than fair value and that are allegedly subsidized by the government of China.[1]

I. The Legal Standard for Preliminary Determinations

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

II. Background

These investigations resulted from a notification of investigations self-initiated by the U.S. Department of Commerce ("Commerce") 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 CAAS from China. The Aluminum Association Common Alloy Sheet Trade Enforcement Working Group and its member firms ("Domestic Interested Parties"),[4] which are domestic producers of CAAS, appeared at the staff conference and submitted a postconference brief.

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

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

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

[4] The Aluminum Association Common Alloy Sheet Trade Enforcement 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.

Two sets of respondents appeared at the conference and/or submitted postconference briefs: Valeo North America, Inc. ("Valeo"), an importer of the subject merchandise; and the National Marine Manufacturers Association ("NMMA") and the Recreational Vehicle Industry Association ("RVIA"), organizations representing industrial users and consumers of the subject merchandise, along with C.E. Smith Company ("C.E. Smith"), an importer of the subject merchandise.

U.S. industry data are based on the questionnaire responses of nine producers, accounting for more than *** percent of U.S. production of CAAS in 2016.[5] U.S. import data are based on official Commerce import statistics and questionnaire responses of 38 U.S. importers, accounting for more than 90 percent of subject imports in 2016.[6] The Commission received responses to its questionnaires from five producers/exporters of subject merchandise in China, accounting for approximately *** percent of production of subject merchandise in 2016.[7]

III. Domestic Like Product

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

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[11] No single factor is

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

[6] CR at I-5, PR at I-4; CR/PR at IV-1. The 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-6, PR at I-4. These do not include out of scope aluminum can stock which is currently imported under HTS statistical reporting numbers 7606.12.3045 and 7606.12.3055. CR at I-6 n.12, PR at I-4 n.12.

[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).

[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 (Continued…)

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 and/or sold at less than fair value,[14] the Commission determines what domestic product is like the imported articles Commerce has identified.[15] The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[16]

A. Scope Definition

In its notices of initiation, 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. Common alloy sheet within the scope of this investigation includes both

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

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

[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 where Commerce found five classes or kinds).

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

> 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.[17]

CAAS is a thin wrought aluminum product that is produced via a rolling process.[18] It is produced in a variety of gauges or levels of thickness.[19] CAAS is used in a wide variety of applications, including building and construction, electrical, infrastructure, marine, and transportation, where properties such as strength, light weight, formability, and corrosion resistance are desired.[20]

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[17] *Common Alloy Aluminum Sheet from the People's Republic of China: Initiation of Less-Than-Fair-Value and Countervailing Duty Investigations*, 82 FR 57214, 57218-57219 (December 4, 2017).

[18] CR at I-11, PR at I-8.

[19] CR at I-11, PR at I-8.

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

B. 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.[21] Respondent Valeo argues that aluminum brazing stock ("brazing stock") used to make heat exchangers for automotive applications and HVAC systems should be treated as a separate domestic like product.[22] Respondents C.E. Smith, NMMA, and RVIA argue that, for purposes of these preliminary determinations, the Commission should include aluminum can stock ("can stock"), which is expressly excluded from the scope, in the domestic like product.[23]

C. Analysis

Based on the current record, we define a single domestic like product consisting of all CAAS coextensive with the scope of the investigations. For the following reasons, we do not define brazing stock as a separate domestic like product or expand the definition of the domestic like product beyond the scope to include can stock for purposes of the preliminary phase of these investigations.

1. Whether Brazing Stock is a Separate Domestic Like Product

Physical Characteristics and Uses. Both brazing stock and other CAAS within the scope are produced largely from the same raw material (*i.e.*, aluminum).[24] The parties disagree whether domestically produced brazing stock is made from the exact same kind and proportion of alloys as other CAAS within the scope, as the Domestic Interested Parties contend, or whether brazing stock production involves different proprietary alloys, as respondent Valeo contends.[25] It is also unclear whether brazing stock has greater corrosion and thermal resistance properties than other CAAS within the scope.[26] There is limited specific information

[21] Domestic Interested Parties' Postconference Brief at 3-13.

[22] *See e.g.*, Valeo Postconference Brief at 1-13.

[23] *See e.g.,* C.E. Smith, NMMA, and RVIA Postconference Brief at 8-13.

[24] *See e.g.*, Conference Tr. at 124 (Cannistra).

[25] While Valeo maintains that brazing stock is made from proprietary alloys, it appears that Valeo is describing foreign production of brazing stock, because it also states that no U.S. producers are able to supply brazing stock for its particular needs. *See* Valeo Postconference Brief at 11-12. The Commission's domestic like product analysis, however, examines similarities and distinctions between domestically produced items. *See*, *e.g.*, *Aluminum Foil from China*, Inv. Nos. 701-TA-570 and 731-TA-1346 (Preliminary), USITC Pub. 4684 at 8 (May 2017); *Large Residential Washers from China*, Inv. No. 731-TA-1306 (Preliminary) USITC Pub. 4591 at 10 (Feb. 2016). As discussed below, two U.S. producers reported producing brazing stock, and therefore our analysis is based on the limited information available regarding domestically produced brazing stock.

[26] Domestic Interested Parties' Postconference Brief at 10-11; Conference Tr. at 120, 141-42 (McKnight) & 151 (Wang).

concerning the relative thickness or gauge of brazing stock, although it appears to be produced within the same range of thickness as other CAAS in the scope.[27]

Brazing stock is used to make components for automotive heat exchangers.[28] Other types of CAAS within the scope are used in a wide range of applications, including transportation, building and construction, infrastructure, and electrical and marine applications.[29]

Manufacturing Facilities, Production Processes and Employees. The record on this factor is limited and mixed. According to the Domestic Interested Parties, two domestic producers (Arconic and Novelis) produce brazing stock on the same equipment, using the same production processes and employees as the other types of CAAS that they also produce.[30] Respondent Valeo suggests that brazing stock production entails additional manufacturing processes (such as annealing) beyond what is required to make other CAAS within the scope.[31]

Channels of Distribution. The record on this factor is very limited. However, the parties seem to agree that brazing stock and other CAAS are both sold to original equipment manufacturers ("OEMs").[32]

Interchangeability. Since brazing stock has a very specific use in the production of components for automotive heat exchangers, it appears to have limited interchangeability with other CAAS within the scope. However, there also appears to be limited interchangeability among some CAAS products within the scope that may have very specific end uses.

Producer and Customer Perceptions. There is limited information in the record concerning producer or customer perceptions. As noted above, the parties disagree as to whether brazing stock is characterized by higher strength, improved corrosion resistance, and enhanced formability, and whether customers expect that brazing stock will have these properties.

Price. There is no specific price data for brazing stock in the record. The average unit value ("AUV") for U.S. producers' U.S. shipments of brazing stock was *** per short ton in in 2016, while the AUV of U.S. producers' U.S. shipments of CAAS was $2,514 in 2016.[33]

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[27] *See, e.g.*, Alcoa,"Aluminum Brazing Sheet: Technical Data," https://www.arconic.com/mill_products/catalog/pdf/china_specs/brazing_sheet_specs.pdf, (EDIS Doc. No. 633304); Lynch Metals, Inc., "Aluminum Brazing Fin and Sheet," http://lynchmetals.com/aluminum-brazing-fin-sheet-stock, (EDIS Doc. No. 633304).

[28] Valeo Postconference Brief at 9; Domestic Interested Parties Postconference Brief at 12.

[29] CR/PR at Table I-1; Valeo Postconference Brief at 9.

[30] Domestic Interested Parties' Postconference Br. at 11. While respondent Valeo claims that Arconic is the sole domestic producer of brazing stock, it did not specifically rebut the assertion by the Domestic Interested Parties that Arconic produces brazing stock and CAAS at the same facility using the same employees. *See* Valeo Postconference Brief at 3.

[31] Valeo Postconference Brief at 10-11. It is unclear to what extent these additional processes are used in *domestic* production of brazing stock.

[32] Domestic Interested Parties' Postconference Brief at 11-12; Valeo Postconference Brief at 9-10.

[33] CR at I-27, PR at I-18.

Conclusion. Where domestically manufactured merchandise is made up of a grouping of similar products or involves niche products, the Commission generally has not considered each item of merchandise that is only "like" its identical counterpart in the scope to be a separate like product, but considers the grouping itself to constitute the domestic like product[34] and "disregards minor variations,"[35] absent a "clear dividing line" between particular products in the group.

There is limited information in the record of these preliminary investigations with respect to domestically produced brazing stock. Brazing stock and other types of CAAS within the scope have different uses, are not interchangeable, and are priced differently (based upon AUV data). It is 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. While the evidence suggests 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 is a distinct product appears to be mixed. On balance, we do not find that the current record demonstrates a clear dividing line separating brazing stock from other CAAS within the scope. Accordingly, we define a single domestic like product coextensive with the scope that includes brazing stock for purposes of the preliminary phase of these investigations. Given the mixed and limited record, however, we intend to seek additional information on brazing stock and examine the issue further in any final phase of these investigations.[36]

2. Whether the Domestic Like Product Includes Can Stock

Physical Characteristics and Uses. Depending on the intended end use of a final product, aluminum is alloyed with different metals (manganese in 3000 series alloys and magnesium in 5000 series alloys) in order to enhance certain physical characteristics.[37] Alloys

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[34] *See, e.g.*, *Certain Corrosion-Resistant Steel Products from China*, *India, Italy, Korea, and Taiwan*, Inv. Nos. 701-TA-534-538 and 731-TA-1274-1278 (Preliminary), USITC Pub. 4547 at 9 (July 2015); *Carbon and Certain Alloy Steel Wire Rod from China, Germany, and Turkey*, Inv. Nos. 731-TA-1099-1101 (Preliminary), USITC Pub. 3832 (January 2006) at 10 ("a lack of interchangeability among products comprising a continuum is not unexpected and not inconsistent with finding a single like product."); *Stainless Steel Bar from France, Germany, Italy, Korea, and the United Kingdom*, Inv. Nos. 701-TA-413 (Final) and 731-TA-913-916 and 918 (Final), USITC Pub. 3488 (February 2002) at 6-7.

[35] *See* S. Rep. No. 96-249 at 90-91 (1979).

[36] At the conference, counsel for Valeo suggested that the separate domestic like product for brazing stock should extend beyond the scope to include out-of-scope brazing stock product, but did not elaborate further. Conference Tr. at 146 (Cannistra). However, in its postconference brief, Valeo appears to have limited its arguments to treating only brazing stock within the scope as a separate domestic like product from all other CAAS within the scope. Valeo Postconference Brief at 3-13. Parties should provide specific information in their draft questionnaire comments in any final phase of these investigations regarding any proposed definition of a brazing stock like product to allow the Commission to collect appropriate data for its analysis. *See* 19 C.F.R. § 207.63(b).

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

within the same series share the same major alloying metal, but may have different chemical compositions.[38] Both out-of-scope can stock and in-scope CAAS are comprised of the same series of aluminum alloys. 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.[39] CAAS within the scope consists of 1000, 3000, and 5000 series aluminum alloys.[40]

While the Domestic Interested Parties contend that can stock is a "generally thinner gauge product relative to CAAS,"[41] 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.[42] U.S. production of aluminum can stock in 2016 was in coils of 0.200 mm to 0.292 mm.[43] The vast majority (98.0 percent) of U.S. production of in-scope CAAS was in coils or sheets of greater than 0.292 mm to 6.3 mm, with only 2.0 percent in coils of 0.200 mm to 0.292 mm.[44]

Out-of-scope can stock and in-scope CAAS appear to 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.[45]

Manufacturing Facilities, Production Processes and Employees. The processes for manufacturing all CAAS within the scope consists generally of three distinct stages: (1) smelting and refining aluminum, (2) casting aluminum into semi-finished forms, and (3) rolling semi-finished forms into aluminum sheet.[46] A witness testifying at the conference on behalf of the Domestic Interested Parties stated that can stock "has a distinctive cold-rolling process due to the very precise surface requirements needed to meet customer demands" suggesting that the processes for making can stock may be somewhat different than those used to make CAAS.[47] Additionally, can stock is typically not annealed, while in-scope CAAS generally is annealed.[48] Four of nine U.S. producers of CAAS (***) reported that they produce can stock on the same equipment and machinery used to produce CAAS.[49]

Channels of Distribution. The record on this factor is limited. While the channels of distribution through which both groups of products are sold appear to be generally similar, can stock and CAAS within the scope are sold to different types of customers. Can stock is sold to

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[38] CR at II-6, PR at II-4-5; CR/PR at Table I-1.

[39] The Aluminum Association, "Aluminum Alloys 101," http://www.aluminum.org/resources/industry-standards/aluminum-alloys-101 (EDIS Doc. No. 632729).

[40] CR/PR at Table II-1; CR at I-10, PR at I-7-8.

[41] Domestic Interested Parties' Postconference Brief at 5-6; Conference Tr. at 22 (Stemple).

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

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

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

[45] Domestic Interested Parties Postconference Brief at 5-6; C.E. Smith, NMMA, and RVIA Postconference Brief at 8.

[46] CR at I-14-19, PR at I-10-14.

[47] Domestic Interested Parties' Postconference Brief at 8; Conference Tr. at 22-23 (Stemple).

[48] Domestic Interested Parties' Postconference Brief at 8; Conference Tr. at 44 (Landa).

[49] CR at I-22, PR at I-15.

aluminum can producers, and in-scope CAAS is sold to different entities that also further process the product (by producing products such as boats, recreational vehicles, thermal insulation, wire roof coil, common alloy coil, auto heat shield, commercial transportation, residential siding, gutters and downspouts, and HVAC equipment).[50]

Interchangeability. Out-of-scope can stock and CAAS within the scope are generally not interchangeable. All nine U.S. producers of CAAS and the majority of importers responding to the Commission's questionnaires reported that can stock is never interchangeable with CAAS.[51]

Producer and Customer Perceptions. The record on this factor is limited. The parties disagree as to whether customers perceive can stock and all other CAAS within the scope as distinct products. A U.S. producer of both can stock and CAAS within the scope testified, however, that it perceives them as distinct products with different customers.[52]

Price. There is no specific price data for can stock in the record. The AUV of U.S. producers' U.S. commercial shipments of can stock was $2,524 per short ton in 2016, while the AUV for all domestically produced CAAS within the scope was $2,514 in 2016.[53]

Conclusion. As with brazing stock, the record on can stock is limited and mixed. Out-of-scope can stock and in-scope CAAS appear to have different uses and generally are not interchangeable. There appears, however, 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). The limited record on producer and customer perceptions is mixed and inconclusive. On balance, we do not define the domestic like product more broadly than the scope to include can stock for purposes of the preliminary phase of these investigations. Given the mixed and limited record, however, we intend to seek additional information on can stock and examine the issue further in any final phase of these investigations.[54]

For the above reasons, we define a single domestic like product consisting of all CAAS coextensive with the scope for purposes of these preliminary phase investigations.

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

[51] CR at I-22-23, PR at I-16. Fifteen importers reported that can stock is never interchangeable with CAAS, while one importer reported that can stock is frequently interchangeable with CAAS and five importers reported that the products are sometimes interchangeable. *Id*.

[52] Domestic Interested Parties Postconference Brief at 8; Conference Tr. at 23 (Stemple).

[53] CR at I-23-24, PR at I-16.

[54] As discussed above, parties should provide specific information in their draft questionnaire comments in any final phase investigations regarding any proposed domestic like product definition to allow the Commission to collect appropriate data for its analysis. *See* 19 C.F.R. § 207.63(b).

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[55] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to Section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[56] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[57]

As explained below, two domestic producers – *** and *** – meet the statutory definition of a related party because they are related to an exporter or import subject merchandise. No party advocated for the exclusion of any domestic producer as a related party.[58] We discuss below whether appropriate circumstances exist to exclude either of the related party producers from the domestic industry.[59]

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[55] 19 U.S.C. § 1677(4)(A).

[56] *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).

[57] 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.

[58] The Domestic Interested Parties argue that no producer should be excluded and that the domestic industry should therefore be defined as all domestic producers of CAAS. *See* Domestic Interested Parties' Postconference Brief at 13-14. According to the Domestic Interested Parties, only one U.S. producer is a related party (*i.e.*, Jupiter) and appropriate circumstances do not exist to exclude it from the domestic industry. *Id*. at 14. Respondents did not address the related party issue.

[59] Domestic producer Arconic is related by common ownership to *** and ***, two producers of ***. CR/PR at Table III-2. However, according to *** during the POI. CR at III-3 n.3, PR at III-2 n.3. (Continued…)

***. *** was the *** largest domestic producer in 2016, accounting for *** percent of domestic production.[60] Although *** did not import subject merchandise directly during the POI, it is related to ***, an exporter of the subject merchandise, through common ownership and therefore meets the definition of a related party.[61] Imports of subject merchandise from *** were *** short tons in 2014 (the equivalent of *** percent of *** domestic production), *** short tons in 2015 (the equivalent of *** percent of *** domestic production), and *** short tons in 2016 (the equivalent of *** percent of *** domestic production).[62] The company *** concerning the imposition of antidumping duties.[63]

*** U.S. production is considerably larger than U.S. imports from the related exporter, indicating that *** principal interest is in domestic production. No party has argued for the exclusion of *** as a related party. Accordingly, we find that appropriate circumstances do not exist to exclude *** from the domestic industry.

***. *** was the *** largest domestic producer in 2016, accounting for *** percent of domestic production.[64] It is a related party because it imported CAAS from a subject country. *** imported *** short tons of CAAS from China in 2015 (the equivalent of *** percent of its domestic production) and *** short tons in 2016 (the equivalent of *** percent of its domestic production).[65] *** stated that its reason for its *** volume of imports was to ***.[66] The company *** the imposition of antidumping duties.[67]

The ***. 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.

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

(…Continued)
Therefore, Arconic does not meet the relevant statutory definition of a related party, which refers to the situation where "the producer directly or indirectly controls the *exporter* or importer." 19 U.S.C. § 1677(4)(B)(ii)(I) (emphasis added).

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

[61] ***. CR/PR at Table III-2. *** may also meet the definition of a related party because it is indirectly related to an importer of the subject merchandise. The importer, ***. *Id*. It is unclear whether a requisite control relationship exists to make *** a related party on this basis. *See* 19 U.S.C. § 1677(4)(B)(ii)(IV).

[62] CR at III-3 n.3, PR at III-2 n.3.

[63] CR/PR at Table III-1. *** operating income to net sales ratio was ***. *Id*. at Table VI-3.

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

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

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

[67] CR/PR at Table III-1. *** operating income to net sales ratio was *** than the industry average in 2014, and above the industry average for the remainder of the POI. *Id*. at Table VI-3.

V. Reasonable Indication of Material Injury by Reason of Subject Imports[68]

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[69] 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.[70] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[71] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[72] 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."[73]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[74] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[75] 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

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[68] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i). Negligibility is not an issue in these investigations. Subject imports from China accounted for 39.5 percent of total U.S. imports of CAAS in the 12-month period (October 2016 through November 2017) preceding the initiation of these investigations. CR at IV-13, PR at IV-12.

[69] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[70] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[71] 19 U.S.C. § 1677(7)(A).

[72] 19 U.S.C. § 1677(7)(C)(iii).

[73] 19 U.S.C. § 1677(7)(C)(iii).

[74] 19 U.S.C. §§ 1671b(a), 1673b(a).

[75] *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).

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.[76]

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.[77] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[78] Nor does

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

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

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

the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[79] It is clear that the existence of injury caused by other factors does not compel a negative determination.[80]

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."[81] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[82]

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[83] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

Mittal Steel clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have

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(…Continued)
"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.").

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

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

[81] *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*.

[82] *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.").

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

"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.[84] 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.[85]

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.[86] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[87]

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

U.S. demand for CAAS depends on the demand for U.S.-produced downstream products.[88] CAAS is used in a broad variety of applications, including building and construction, electrical, infrastructure, marine, and transportation.[89] End uses for CAAS include roof coil, common alloy coil, auto heat shield, commercial transportation, residential siding, gutters and downspouts, general fabrication, and HVAC equipment.[90]

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[84] *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).

[85] 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.

[86] We provide in our respective discussions of volume, price effects, and impact a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[87] *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.").

[88] CR at II-6, PR at II-5.

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

Apparent U.S. consumption of CAAS increased by 4.6 percent from 2014 to 2016, and was 8.6 percent higher in interim 2017 than in interim 2016.[91] Most U.S. producers and importers reported that demand for CAAS increased during the POI.[92]

2. Supply Conditions

The domestic industry had the largest share of the U.S. market during the POI, although its market share steadily declined. The domestic industry's market share declined from 64.9 percent in 2014 to 58.9 percent in 2015 and 58.0 percent in 2016, for an overall decline of 6.9 percentage points.[93] The domestic industry's market share was 4.1 percentage points lower in interim 2017, at 54.2 percent, than in interim 2016, at 58.3 percent.[94] In 2016, nine domestic producers accounted for more than *** percent of U.S. production of CAAS.[95] The domestic industry's reported capacity was relatively stable and below apparent U.S. consumption throughout the POI.[96]

There were several notable developments affecting the operations of the domestic industry during the POI. In February 2015, Aleris, the largest domestic producer of CAAS, closed its mill in Decatur, Alabama.[97] Three producers (***) reported acquisitions and/or consolidations during the POI,[98] while three other producers (***) reported prolonged shutdowns or production curtailments.[99] Aleris's planned acquisition by a foreign producer, which originally was 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.[100]

Nonsubject imports were the second largest source of supply to the U.S. market during the POI. Nonsubject imports' share of apparent U.S. consumption increased from 24.2 percent in 2014 to 26.0 percent in 2015 and 26.7 percent in 2016.[101] Nonsubject imports' market share was higher in interim 2017, at 27.0 percent, than in interim 2016, at 26.5 percent.[102] In 2016, the largest source of nonsubject imports was Canada.[103]

(…Continued)

[90] CR at II-6, PR at II-5.

[91] Apparent U.S. consumption of CAAS was 1.90 million short tons in 2014, 1.97 million short tons in 2015, 1.99 million short tons in 2016, 1.51 million short tons in interim 2016, and 1.64 million short tons in interim 2017. CR/PR at Tables IV-7, C-1.

[92] CR/PR at Table II-4.

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

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

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

[96] CR/PR at Tables III-5, IV-7, and C-1.

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

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

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

[100] CR/PR at Table III-3; CR at III-4, PR at III-3.

[101] CR/PR at Tables IV-7, C-1.

[102] CR/PR at Tables IV-7, C-1.

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

Subject imports' share of apparent U.S. consumption increased from 11.0 percent in 2014 to 15.1 percent in 2015 and 15.3 percent in 2016.[104] Subject imports' market share was higher in interim 2017, at 18.8 percent, than in interim 2016, at 15.2 percent.[105]

3. Substitutability and Other Conditions

The record indicates that there is a moderate-to-high degree of substitutability between domestically produced CAAS and CAAS imported from China.[106] All nine domestic producers reported that the domestic like product and the subject imports were always or frequently interchangeable.[107] Although their responses were more mixed, most importers (18 of 30) also reported that the domestic like product and subject imports were always or frequently interchangeable.[108]

The current record indicates that price is an important factor in purchasing decisions for CAAS. Producers and importers were asked to assess how often factors other than price were significant in sales between CAAS produced in the United States, subject, or nonsubject countries. Most U.S. producers reported that differences other than price were never a factor in their firms' sales of CAAS.[109] The majority of importers, on the other hand, reported that differences other than price were frequently or sometimes significant between domestic and Chinese CAAS.[110] Differences other than price cited by importers include limited domestic supply availability and superior service by Chinese producers.[111]

U.S. producers reported selling *** percent of their commercial shipments through annual contracts, *** percent on the spot market, *** percent through long-term contracts, and *** percent through short-term contracts.[112] Importers reported selling *** percent of their commercial shipments on the spot market, *** percent through short-term contracts, *** percent through annual contracts, and *** percent through long-term contracts.[113]

The cost of raw materials used to produce CAAS, as a share of U.S. producers' total cost of goods sold ("COGS"), declined from 68.1 percent in 2014 to 66.5 percent in 2016.[114] The primary raw material used to manufacture CAAS is unwrought aluminum derived from primary and/or secondary sources.[115] In the United States, the price of primary aluminum is comprised

[104] CR/PR at Tables IV-7, C-1.
[105] CR/PR at Tables IV-7, C-1.
[106] CR at II-10, PR at II-7.
[107] CR/PR at Table II-5.
[108] CR/PR at Table II-5.
[109] CR at II-12, PR at II-8-9; CR/PR at Table II-6.
[110] CR at II-12, PR at II-9; CR/PR at Table II-6.
[111] CR at II-12, PR at II-9; CR/PR at Table II-6.
[112] CR/PR at Table V-2.
[113] CR/PR at Table V-2.
[114] CR/PR at Table VI-1. The cost of raw materials used to produce CAAS, as a share of U.S. producers' total COGS, was higher in interim 2017, at 64.5 percent, than in interim 2016, at 62.8 percent. *Id*.
[115] CR/PR at V-1.

of two components: the London Metal Exchange ("LME") price and the U.S. Midwest premium.[116] 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.[117] Prices of imported CAAS, however, do not include the U.S. Midwest premium.[118] The Midwest premium peaked at historically high levels in 2014/2015.[119] Over the POI, the composite of the LME price of aluminum and the Midwest premium fluctuated considerably.[120]

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."[121]

Subject imports had a substantial and increasing presence in the U.S. market during the POI. The volume of subject imports increased from 208,744 short tons in 2014 to 296,495 short tons in 2015 and 303,270 short tons in 2016, a level 45.3 percent higher than in 2014.[122] Subject imports were 34.1 percent higher in interim 2017, at 307,638 short tons, than in interim 2016, at 229,342 short tons.[123]

The volume of subject imports rose at a faster rate than apparent U.S. consumption and subject imports experienced significant gains in market share at the expense of the domestic industry. Subject imports' share of apparent consumption increased from 11.0 percent in 2014

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[116] CR/PR at V-1. The U.S. Midwest premium is the daily premium (or discount) to the LME price. The U.S. Midwest premium is "***." CR/PR at V-1 (quoting ***). It reflects both delivery to a typical freight consumer in a broad U.S. Midwest region via truck or rail as well as transaction costs. CR at V-1-2, PR at V-1. Like the LME price, the Midwest premium is publicly available. CR/PR at Figure V-1.

[117] *See, e.g.*, Conference Tr. at 84 (McCarter).

[118] *See, e.g.*, Conference Tr. at 116 (Mowry).

[119] CR/PR at V-1.

[120] *See* CR/PR at Figure V-1.

[121] 19 U.S.C. § 1677(7)(C)(i).

[122] CR/PR at Tables IV-2 & C-1. 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' Postconference Brief, Answers to Staff Questions, Exh. 1 at 1-2. Respondents C.E. Smith, NMMA, and RVIA argue that the official import statistics overstate the volume of subject imports and urge the Commission to rely only on questionnaire data. *See, e.g.*, C.E. Smith, NMMA, and RVIA Postconference Brief at 13-15. We have relied on official import statistics for import volumes in the preliminary phase of these investigations. CR at I-5, PR a I-4; CR/PR at Table IV-2. While the questionnaire data provides coverage for more than 90 percent of subject imports from China in 2016, the coverage for nonsubject imports is only about 50 percent. CR at I-5-6, PR at I-4. The relatively low coverage for nonsubject imports appears to be due to non-reporting firms and a moderate degree of overstatement in official import statistics, including out-of-scope merchandise. CR at I-6 n.10, PR at I-4 n.10. In any final phase of these investigations, we will reexamine the issue of the most appropriate data source(s) for analyzing import volumes.

[123] CR/PR at Tables IV-2 & C-1.

to 15.1 percent in 2015 and 15.3 percent in 2016, an overall increase of 4.3 percentage points.[124] Subject imports' share of apparent consumption was 3.6 percentage points higher in interim 2017, at 18.8 percent, than in interim 2016, at 15.2 percent.[125]

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

D. Price Effects of the Subject Imports

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

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (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.[126]

As addressed in section V.B. above, the record indicates that there is a moderate-to-high degree of substitutability between subject imports and the domestic like product and that price is an important factor in purchasing decisions.[127]

Five domestic producers and 11 importers of subject merchandise provided usable quarterly f.o.b. price data for seven CAAS pricing products,[128] although not all firms reported pricing for all products for all quarters.[129] Subject imports were present in the market for all seven pricing products.[130] Subject imports undersold the domestic like product in 71 of 105 quarterly comparisons, or 67.6 percent of comparisons, at margins ranging from 0.3 percent to 13.4 percent.[131] There were 296,976,032 pounds of subject import shipments involved in quarters with underselling and 125,094,670 pounds of subject import shipments involved in

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[124] CR/PR at Tables IV-7, C-1.

[125] CR/PR at Tables IV-7, C-1.

[126] 19 U.S.C. § 1677(7)(C)(ii).

[127] CR/PR at Tables II-5 and II-6; CR at II-11-12, PR at II-7-8.

[128] CR at V-6, PR at V-4. 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. CR at V-5, PR at V-3.

[129] Reported pricing data account for approximately 2.8 percent of domestic producers' U.S. commercial shipments during the POI and 19.5 percent of U.S. commercial shipments of subject imports. CR at V-6, PR at V-4.

[130] CR/PR at Tables V-3 to V-9.

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

quarters with overselling.[132] Thus, on a volume basis, 70.4 percent of reported subject imports were involved in quarters with underselling. This underselling was concentrated in Product 3 and, to a lesser extent, in Products 1, 2, 4, and 6.[133] Given the moderate-to-high degree of substitutability between the domestic like product and the subject imports and the importance of price in purchasing decisions, we find this underselling to be significant.[134]

We have also considered price trends for the domestic like product and subject imports. Prices for the domestic like product and subject imports fluctuated throughout the POI, but generally declined modestly between January 2014 and September 2017.[135] Overall, prices for the domestically produced pricing products declined between *** percent and *** percent over the POI.[136] Prices for subject imports declined between *** percent and *** percent over the POI (with the exceptions of pricing Products 3 and 6 for which subject import prices increased by 2.1 percent and *** percent, respectively).[137]

As discussed above, the price of U.S.-produced CAAS consists of three components: the LME price of aluminum, the Midwest premium, and the fabrication or conversion price. Domestic CAAS prices are influenced to a large extent by published raw material prices, as raw material costs accounted for a substantial share of U.S. producers' total COGS. Over the POI, the composite of the LME price of aluminum and the Midwest premium fluctuated considerably, including substantial declines from January 2014 to November 2015 (*** percent), ending the POI at a similar level to that in the beginning.[138] As noted above, the prices for most domestically produced CAAS fell over the POI by between *** percent and *** percent.[139] Based on the record in the preliminary phase of these investigations, we cannot conclude that subject imports depressed the prices of the domestic like product to a significant degree due to the linkage between CAAS prices and raw material costs. In any final phase of

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

[133] CR/PR at Table V-12.

[134] In the preliminary phase of these investigations, the Commission requested information concerning the domestic industry's lost sales and lost revenues due to competition from subject imports during the POI. Six domestic producers provided lost sales and lost revenue allegations. CR at V-23-24, PR at V-18. Thirteen of the 16 purchasers that responded to the preliminary phase lost sales/lost revenues survey reported purchasing imported CAAS from China instead of U.S.-produced product since 2014. CR at V-25, PR at V-18; CR/PR at Table V-14. All thirteen of these purchasers reported that subject import prices were lower than the U.S.-produced product, and ten of these purchasers reported that price was a primary reason for the decision to purchase imported CAAS rather than U.S.-produced CAAS . *Id*. Purchasers identified diversifying supply and limited capabilities of domestic mills as non-price reasons for purchasing imported rather than U.S.-produced CAAS. *Id*. Responding purchasers estimated purchasing *** short tons of CAAS from subject sources instead of domestically produced CAAS in 2016, for an overall increase of *** percent in the share of their purchases of subject imports since 2014. CR/PR at Table V-13.

[135] CR at V-21, PR at V-15; CR/PR at Figures V-3 through V-9.

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

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

[138] *See* CR/PR at Figure V-1.

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

these investigations, we intend to further explore the role of raw material costs, including the role of the Midwest premium, in determining CAAS prices.[140]

During the POI, the domestic industry's COGS to net sales ratio declined from *** percent in 2014 to *** percent in 2015 and *** percent in 2016.[141] The ratio was higher in interim 2017, at *** percent, than in interim 2016, at *** percent.[142] In light of the linkage between raw material costs and CAAS prices, any increase in prices for the domestic like product from 2014-2016 would have been unlikely. Based on the current record, it also is unclear what factors contributed to the increase in the domestic industry's COGS to net sales ratio between interim periods. In any final phase of these investigations, we intend to examine more closely whether subject imports or other factors may have prevented price increases which otherwise would have occurred to a significant degree.

Accordingly, based on the record in the preliminary phase of these investigations, we find that subject imports significantly undersold the domestic like product. As a result of this underselling, the subject imports gained market share at the expense of the domestic industry, as described in section V.C. above. The low-priced subject imports consequently had significant effects on the domestic industry, which are described further below.

E. Impact of the Subject Imports[143]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[144]

As discussed above, subject imports captured market share at the expense of the domestic industry throughout the POI. Subject imports' share of apparent U.S. consumption increased from 11.0 percent in 2014 to 15.1 percent in 2015 and 15.3 percent in 2016, an increase of 4.3 percentage points.[145] By comparison, the domestic industry lost 6.9 percentage

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[140] We note that, for most pricing products, domestic prices were lower than subject import prices in 2016, notwithstanding that the Midwest premium generally increased from November 2015 for the remainder of the POI. CR/PR at V-1 & Tables V-3 to V-9.

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

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

[143] In its notice initiating the antidumping duty investigation on CAAS from China, Commerce reported estimated antidumping duty margins ranging from 56.54 to 59.72 percent. C*ommon Alloy Aluminum Sheet from the People's Republic of China: Initiation of Less Than Fair Value and Countervailing Duty Investigations,* 82 FR 57214, 57216 (Dec. 4, 2017).

[144] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[145] CR/PR at Tables IV-7, C-1.

points of market share from 2014 to 2016, as its share of apparent U.S. consumption decreased from 64.9 percent in 2014 to 58.9 percent in 2015 and 58.0 percent in 2016.[146] The domestic industry's market share was 4.1 percentage points lower in interim 2017, at 54.2 percent, than in interim 2016, at 58.3 percent, as subject imports continued to gain market share at the expense of the domestic industry.[147]

Most of the domestic industry's output indicia declined during the POI or otherwise did not increase commensurately with apparent U.S. consumption for CAAS.[148] From 2014 to 2016, the domestic industry's production declined by 7.2 percent,[149] its capacity declined by 2.1 percent,[150] its capacity utilization declined by 4.4 percentage points,[151] and its U.S. shipments, by quantity, declined by 6.5 percent.[152] While apparent U.S. consumption for CAAS was 8.6 percent higher in interim 2017 than in interim 2016, the domestic industry's production was 1.8 percent higher, its capacity was 1.4 percent higher, and its shipments (by quantity) were 1.0 percent higher in interim 2017 than in interim 2016.[153] [154]

The domestic industry's employment indicia were mixed. From 2014 to 2016, the domestic industry's number of production related workers ("PRWs") declined by 3.4 percent, hours worked declined by 1.7 percent, and wages paid declined by 0.3 percent, although all of these indicia improved in interim 2017.[155] Hourly wages increased by 1.4 percent from 2014 to

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[146] CR/PR at Tables IV-7, C-1.

[147] CR/PR at Tables IV-7, C-1. Subject imports' market share was 3.6 percentage points higher in interim 2017, at 18.8 percent, than in interim 2016, at 15.2 percent. *Id*.

[148] Apparent U.S. consumption increased by 4.6 percent from 2014 to 2016, and was 8.6 percent higher in interim 2017 than in interim 2016. CR/PR at Table C-1.

[149] The domestic industry's production declined from 1,336,212 short tons in 2014 to 1,230,158 short tons in 2015, but then increased to 1,239,747 short tons in 2016. CR/PR at Table III-5.

[150] The domestic industry's capacity increased from 1,575,550 short tons in 2014 to 1,584,050 short tons in 2015 and then decreased to 1,542,800 short tons in 2016. CR/PR at Table III-5.

[151] The domestic industry's capacity utilization declined from 84.8 percent in 2014 to 77.7 percent in 2015, but then increased to 80.4 percent in 2016. CR/PR at Table III-5.

[152] By quantity, U.S. producers' U.S. shipments declined from 1,232,479 short tons in 2014 to 1,158,598 short tons in 2015 and 1,152,061 short tons in 2016. CR/PR at Table III-5.

[153] The domestic industry's production was 937,504 short tons in interim 2016 and 954,661 short tons in interim 2017. CR/PR at Table III-5. Its capacity was 1,159,269 short tons in interim 2016 and 1,175,269 short tons in interim 2017. *Id*. Its capacity utilization was 80.9 percent in interim 2016 and 81.2 percent in interim 2017. *Id*. Its U.S. shipments were 878,895 short tons in interim 2016 and 887,698 short tons in interim 2017. *Id*.

[154] The domestic industry had increasing inventories during the POI. U.S. producers end-of-period inventories increased irregularly from 2014 to 2016, declining from 200,524 short tons in 2014 to 195,626 short tons in 2015, but then increasing to 212,233 short tons in 2016. CR/PR at Table III-10. U.S. producers' end-of-period inventories were higher in interim 2017, at 228,396 short tons, than in interim 2016, at 199,071 short tons. *Id*. The ratios of U.S. producers' end-of-period inventories to U.S. production, U.S. shipments, and total shipments each steadily increased from 2014 to 2016, and were higher in interim 2017 than in interim 2016. *Id*.

[155] The number of PRWs were 5,664 in 2014, 5,519 in 2015, 5,472 in 2016, 5,371 in interim 2016, and 5,452 in interim 2017. Total hours worked were 12.5 million hours in 2014, 13.4 million hours in (Continued…)

2016, and also were higher in interim 2017 than in interim 2016.[156] Productivity declined from 2014 to 2016, and was slightly lower in interim 2017 than in interim 2016.[157]

Although the domestic industry's unit net sales value and total net sales revenues declined from 2014 to 2016,[158] its gross profits, operating income, and operating income as a share of net sales increased from 2014 to 2016,[159] but it experienced net income losses during the same period.[160] The domestic industry became less profitable in interim 2017, however, as total COGS increased at a faster rate than total net sales unit values.[161] Notwithstanding that its unit net sales value and total net sales improved in interim 2017,[162] the domestic industry's gross profits, operating income, operating income as a ratio of net sales, and net income were all lower in interim 2017 than in interim 2016.[163] [164]

(…Continued)
2015, 12.3 million hours in 2016, 8.9 million hours in interim 2016, and 9.2 million hours in interim 2017. Wages paid were $367.6 million in 2014, $393.5 million in 2015, $366.4 million in 2016, $271.9 million in interim 2016, and $291.4 million in interim 2017. CR/PR at Table III-12.

[156] Hourly wages were $29.43 per hour in 2014, $29.32 per hour in 2015, $29.84 per hour in 2016, $30.49 per hour in interim 2016, and $31.75 per hour in interim 2017. CR/PR at Table III-12.

[157] Productivity was 107.0 shorts tons per hour in 2014, 91.7 short tons per hour in 2015, 100.9 short tons per hour in 2016, 105.1 short tons per hour in interim 2016, and 104.0 short tons per hour in interim 2017. CR/PR at Table III-12.

[158] The domestic industry's total net sales declined from $3.8 billion in 2014 to $3.4 billion in 2015, and then to $3.1 billion in 2016. CR/PR at Table VI-3. Its average unit net sales value declined from $2,928 per short ton in 2014 to $2,758 per short ton in 2015 and to $2,519 per short ton in 2016. *Id*.

[159] Gross profits increased from $219.3 million in 2014 to $226.5 million in 2015 and $241.2 million in 2016. CR/PR at Table VI-3. Operating income declined from $89.2 million in 2014 to $68.2 million in 2015, but then increased to $104.3 million in 2016. *Id*. Operating income as a ratio of net sales declined from 2.3 percent in 2014 to 2.0 percent in 2015, but then increased to 3.4 percent in 2016. *Id*.

[160] The domestic industry's net income losses were $*** in 2014, $*** in 2015, and $*** in 2016. CR/PR at Table VI-3.

[161] CR/PR at Tables VI-1, VI-3, and C-1.

[162] The domestic industry's total net sales were $2.4 billion in interim 2016 and $2.7 billion in interim 2017. CR/PR at Table VI-3. Its average unit net sales value was $2,516 per short ton in interim 2016 and $2,836 per short ton in interim 2017. *Id*.

[163] Gross profits were $194.4 million in interim 2016 and $176.5 million in interim 2017. Operating income was $95.7 million in interim 2016 and $64.5 million in interim 2017. Operating income as a ratio of net sales was 4.1 percent in interim 2016 and 2.4 percent in interim 2017. Net income was $*** in interim 2016 and the domestic industry reported a net loss of *** in interim 2017. CR/PR at Table VI-3.

[164] The domestic industry's capital expenditures, research and development expenses , and return on assets increased steadily and/or irregularly during the POI. The domestic industry's capital expenditures were $84.2 million in 2014, $124.1 million in 2014, $148.3 million in 2016, $100.2 million in interim 2016, and $115.8 million in interim 2017. The industry's research and development expenses were $2.6 million in 2014 and 2015, $3.1 million in 2016, $2.3 million in interim 2016, and $2.6 million in interim 2017. CR/PR at Table VI-5. The industry's return on assets, expressed as operating income as a (Continued…)

For purposes of the preliminary phase of these investigations, we find that subject imports had a significant impact on the domestic industry. Low-priced subject imports increased significantly in absolute terms and relative to consumption during the POI, and significantly undersold the domestic like product, causing the domestic industry's market share to decline. The domestic industry's production and shipments decreased while demand was increasing between 2014 and 2016, and did not keep pace with rapidly increasing demand between interim periods. As a result, the domestic industry's capacity utilization, employment, revenues, and profits were lower than they would have been otherwise throughout the POI. In light of these considerations, we find that subject imports had a significant adverse impact on the domestic industry.[165]

We have also examined the role of nonsubject imports. As discussed above, 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.[166] Information available indicates that subject imports generally were priced lower than nonsubject imports.[167] Therefore, based upon the current record, nonsubject imports cannot explain the magnitude of the domestic industry's market share losses throughout the POI or the observed declines in the domestic industry's revenues and financial performance in interim 2017.[168]

For the foregoing reasons, we find that the record of the preliminary phase of these investigations supports a determination that there is a reasonable indication of material injury by reason of subject imports.

(…Continued)
share of total assets, declined from 4.0 percent in 2014 to negative 3.0 percent in 2015, but then rose to 4.6 percent in 2016. CR/PR at Table VI-6.

[165] Respondents contend that the domestic industry cannot supply certain segments of the U.S. market because only one domestic producer produces wide-width CAAS. *See e.g.,* C.E. Smith, NMMA, and RVIA Postconference Brief at 21-22. The evidence provided by the Domestic Interested Parties demonstrates that as many as four U.S. producers manufacture wide-width CAAS and that the domestic industry can supply the market. *See* Domestic Interested Parties Postconference Br. at 34, Exh. 1 at 3. In any final phase of these investigations, we will examine the domestic industry's ability to supply the U.S. market, including with respect to wide-width CAAS.

[166] CR/PR at Tables IV-5, C-1. From 2014 to 2016, nonsubject imports' market share increased by 2.5 percentage points while subject imports' market share increased by 4.3 percentage points. Moreover, nonsubject imports' market share was only 0.5 percentage points higher in interim 2017 than in interim 2016 whereas subject imports' market share was 3.6 percentage points higher. CR/PR at Table C-1.

[167] CR/PR at Table D-1. Imports of non-clad material comprise the preponderance of CAAS imports. For non-clad material, the AUVs of subject imports from China were substantially lower than those from nonsubject sources in all 15 quarters between January 2014 and September 2017. *Id*. For clad material, the AUVs of subject imports were higher than those from nonsubject sources during the first 11 quarters of the POI and lower than those from nonsubject sources in three of the final four quarters. *Id*.

[168] We intend in any final phase of these investigations to obtain additional information about the role of nonsubject imports in the U.S. market, including pricing data for nonsubject imports.

VI. Conclusion

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

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 investigations (82 FR 58025, December 8, 2017)
December 21, 2017	Commission's conference
January 12, 2018	Commission's vote
January 16, 2018	Commission's determinations
January 24, 2018	Commission's views

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

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

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

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

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

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

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

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

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

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

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

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

Organization of report

Part I of this report presents information on the subject merchandise, alleged 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 generally used in a variety of applications, including in building and construction, electrical, infrastructure, marine, and transportation, where characteristics such as strength, light-weight, formability, and corrosion resistance are desired.[6] The leading U.S. producers of flat-rolled products (of which sheet accounts for a substantial share) include Arconic, Novelis, Constellium, Aleris, and Kaiser Aluminum.[7] The leading U.S. producers of CAAS include ***. Leading foreign producers of 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 flat-rolled products include Gulf Aluminum Rolling Mill Co (GARMCO, Bahrain), AMAG Rolling GmbH (Asia, Europe, Middle East, and North America), Chinalco Group (China), and JW Aluminum (United States).[8] U.S. purchasers of alloy aluminum sheet are firms that purchase through contracts and spot orders based primarily on the quality of the product and secondly on price; leading purchasers include ***.

Apparent U.S. consumption of CAAS totaled approximately 2.0 million short tons ($5.0 billion) in 2016. Currently, nine firms are known to produce CAAS in the United States. U.S. producers' U.S. shipments of CAAS totaled 1.2 million short tons ($2.9 billion) in 2016, and accounted for 58.0 percent of apparent U.S. consumption by quantity and 57.8 percent by value. U.S. imports from subject sources totaled 303,270 short tons ($656.9 million) in 2016 and accounted for 15.3 percent of apparent U.S. consumption by quantity and 13.1 percent by

[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).

[7] Aluminum Circle, "Top Five Aluminum Sheet, Plate, and Strip Manufacturers in the United States," June 2, 2017, http://www.alcircle.com/news/downstream-products/detail/27869/top-five-aluminium-sheet-plate-and-strip-manufacturers-in-the-us, (accessed December 28, 2017).

[8] 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).

value. U.S. imports from nonsubject sources totaled 531,439 short tons ($1.5 billion) in 2016 and accounted for 26.7 percent of apparent U.S. consumption by quantity and 29.1 percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in this proceeding is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of nine firms that accounted for more than *** percent of U.S. production of CAAS during 2016. U.S. imports are based on official Commerce statistics[9] and questionnaire responses received from 38 companies, representing more than 90 percent of U.S. imports from China, for both the number of firms responding and for the quantity of imports, and approximately 70 percent imports of the number of firms responding and more than 50 percent of quantity of imports from nonsubject sources in 2016 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.[10] [11] [12]

Useable responses to the Commission's foreign producers' or exporters' questionnaire were received from five firms in China, whose exports to the United States accounted for approximately *** percent of U.S. imports of CAAS from China during 2016.[13] According to estimates requested of the responding producers in China, the production of CAAS in China reported in questionnaires accounts for approximately *** percent of overall production of CAAS in China.

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[9] The domestic interested party states that virtually all the imports entering under the eight HTS statistical reporting numbers during January 2014-September 2017 are believed to be in-scope merchandise. In addition, the domestic interested party argues that the Commission should rely on official import statistics as representation of CAAS imports. Domestic interested party postconference brief, p. 21 n. 11 and responses to ITC Staff questions, pp. 1-2. Respondent Valeo did not take a position on the most appropriate dataset. Conference transcript, p. 132 (Mowry). Respondent Nation Marine Manufacturers Association, the Recreational Vehicle Manufacturers Association and C.E. Smith Company, Inc. ("Respondent NMMA, RVIA and CE Smith") argues that the Commission should use questionnaire data as official statistics include a small proportion of nonsubject merchandise, the Commission is unable to ensure integrity of it, and it does not include imports of aluminum can stock. Respondent NMMA, RVIA and CE Smith's postconference brief, pp. 14-15.

[10] The lower 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 (e.g. see email from ***, January 4, 2018).

[11] Two U.S. importers, ***, representing approximately *** percent of U.S. imports of CAAS from China in 2016, respectively, provided questionnaires 13 and 15 days, respectively, after the Commission's questionnaire return deadline. As *** did not provide value of U.S. imports from China U.S. commercial shipments, the average unit value of U.S. imports was used to calculate this data series.

[12] These do not include aluminum can stock which is currently imported under HTS statistical reporting numbers 7606.12.3045 and 7606.12.3055.

[13] ***.

PREVIOUS AND RELATED INVESTIGATIONS

CAAS has not been the subject to any prior countervailing or antidumping duty investigations in the United States.[14] In 2017, the Commission conducted preliminary phase antidumping duty and countervailing duty investigations on aluminum foil from China. The Commission determined that reasonable indication that an industry in the United States is materially injured by reason of imports of aluminum foil from China that are alleged to be sold in the United States at LTFV and to be subsidized by the government of China.[15] The Commission is currently conducting the final phase of these investigations.

In 2004, the Commission conducted an antidumping duty investigation on aluminum plate from South Africa. The Commission determined that 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.[16]

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.[17]

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. The investigation was ongoing at the time this report was finalized.[18]

NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged subsidies

On December 4, 2017, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigation on CAAS from China.[19] Commerce identified the following government programs in China:

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[14] Conference transcript, p. 10 (Herrman).

[15] *Aluminum Foil from Chain, Investigation Nos. 701-TA-570 and 731-TA-1346 (Preliminary)*, USITC Publication 4684, May 2017, p. 1

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

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

[18] https://www.commerce.gov/page/section-232-investigation-effect-imports-aluminum-us-national-security, accessed January 8, 2018.

[19] *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.

A. Preferential Lending
    1. Policy Loans to the Common Alloy Sheet Industry;
    2. Policy Loans for State-Owned Enterprises (SOEs);
    3. Export Loans from Chinese State-Owned Banks;
    4. Export Credits from Export-Import Bank of China;
        a. Export Seller's Credit;
        b. Export Buyer's Credit.

B. Equity Infusions and Exemption for SOEs from Distribution Dividends
    1. Equity Infusions into Nanshan Aluminum;
    2. Exemptions for SOEs from Distributing Dividends.

C. Tax Programs
    1. Income Tax Reduction for High or New Technology Enterprises;
    2. Income Tax Deductions for Research and Development Expenses Under the Enterprise Income Tax Law;
    3. Income Tax Concessions for Enterprises Engaged in Comprehensive Resource Utilization;
    4. Income Tax Deductions/Credits for Purchase of Special Equipment.

D. Direct Tax Programs
    1. Import Tariff and VAT Exemptions on Imported Equipment in Encouraged Industries;
    2. VAT Rebates on Domestically-Produced Equipment;
    3. Stamp Tax Exemption on Share Transfers Under Non-Tradeable Share Reform (NSTR);
    4. Deed Tax Exemption for SOEs Undergoing Mergers or Restructuring.

E. Government Provision of Goods and Services for Less Than Adequate Remuneration (LTAR)
    1. Government Provision of Land LTAR;
    2. Government Provision of Primary Aluminum for LTAR;
    3. Provision of Steam Coal for LTAR;
    4. Provision of Electricity for LTAR.

F. Grant Programs
    1. GOC and Sub-Central Government Subsidies for the Development of Famous Brands and China World Top Brands;
    2. The State Key Technology Project Fund;
    3. Foreign Trade Development Fund Grants;
    4. Grants for Energy Conservation and Emission Reduction;
    5. Grants for the Retirement of Capacity;
    6. Grants for the Relocation of Productive Facilities;
    7. Grants to Nanshan Aluminum and Henan Mingtai.

Alleged sales at LTFV

On December 4, 2017, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on CAAS from China.[20] Commerce has initiated antidumping duty investigations based on estimated dumping margins of 56.54 percent and 59.72 percent for CAAS from China.

THE SUBJECT MERCHANDISE

Commerce's scope

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

> The merchandise covered by this investigation is 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 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

[20] *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.

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.[21]

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations 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.[22] 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. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

THE PRODUCT

Description and applications

Aluminum sheet is a thin wrought[23] 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

[21] *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.

[22] 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.

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

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.[24]

Table I-1 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.[25] Common applications for Alloy 5052 include architecture, general sheet metal work, and heat exchangers.[26]

Table I-1
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	Non-heat-treatable, medium strength, good formability, good corrosion resistance	Storage tanks, beverage cans, home appliances, heat exchangers, pressure vessels, siding, gutters
5XXX	Magnesium	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

Note.—Not all 1XXX, 3XXX, and 5XXX series alloy are subject to these investigations. The properties and end uses described above may include product that is out of the scope of this investigation.

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, p. 530-31.

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

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

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

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.[27]

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.[28] Aluminum can stock also has a lubricant applied to its surfaces in order to facilitate movement through equipment used to manufacture beverage cans.[29]

Manufacturing processes[30]

The manufacturing processes for CAAS are summarized below. In general, there are three distinct stages that include: (1) melting and refining aluminum, (2) casting[31] aluminum into semi-finished forms such as sheet ingot,[32] 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

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

[28] 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.

[29] 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.

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

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

[32] 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. Source: *Aluminum: Competitive Conditions Affecting the U.S. Industry, Inv. No. 332-557*, USITC Publication 4703, June 2017, p. 27.

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, aluminum scrap (both old[33] and new[34]) 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.[35] The desired characteristics of aluminum are determined prior to the casting stage.

Casting

Following the production of molten aluminum with the desired properties, the molten aluminum is then 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.[36] Direct chill casting requires more energy,[37] has higher production costs, and produces a higher-quality product when compared to continuous casting.[38]

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[39] 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).[40] Strips produced during this process can be between 3 and 20 mm (0.11811 and 0.787402 inches) in thickness.[41] 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.[42]

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[33] Old scrap is post-consumer material derived from various end uses such as manufactured products and construction materials.

[34] New scrap is generated during the manufacturing of various aluminum products, and often takes the form of shavings and trimmings.

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

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

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

[38] Conference transcript, p. 75-76 (Landa).

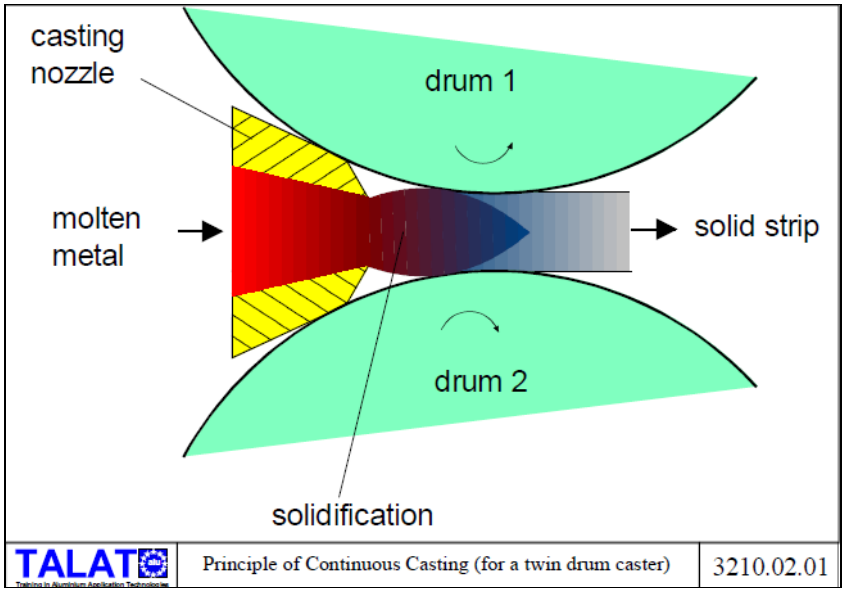
[39] The water-cooled rollers are labeled drum 1 and drum 2 in figure I-2.

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

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

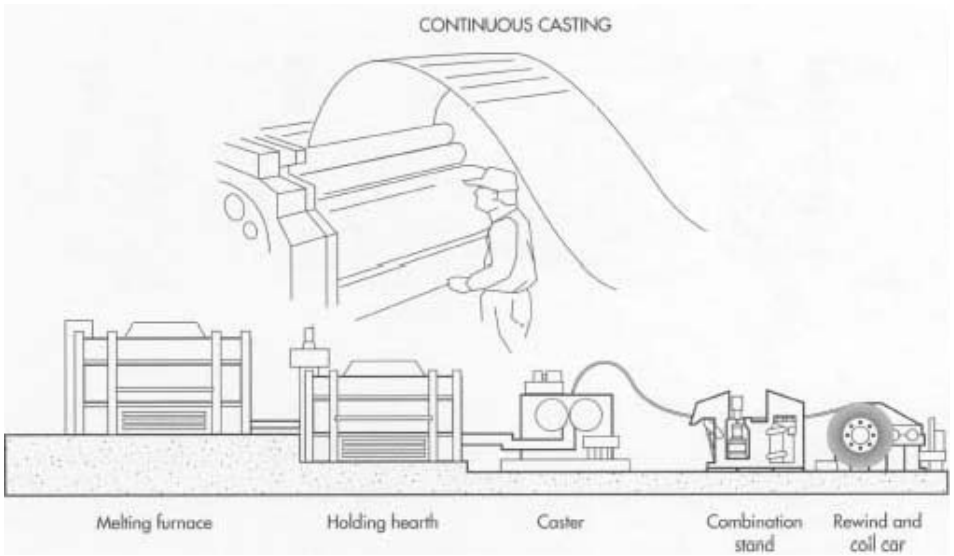
[42] Novelis, "Metal Production: CC Casting," http://novelis.com/about-us/metal-production/#1444742157266-1bded669-dec8, (accessed March 17, 2017).

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



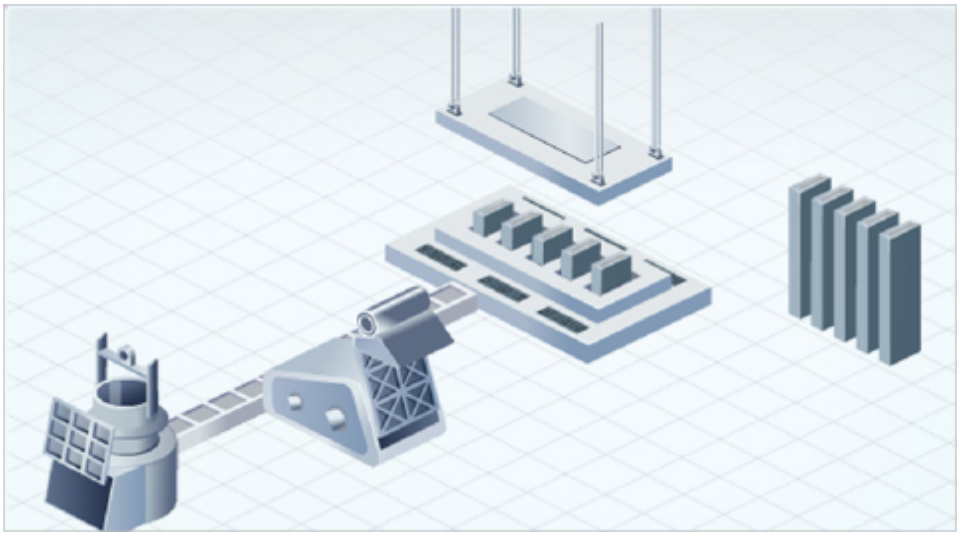
Source: http://www.madehow.com/Volume-1/Aluminum-Foil.html, (accessed March 8, 2017).

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[43] before they are cooled to room temperature and transferred to a hot rolling mill for further processing.[44] One foreign producer indicated that solely uses the direct chill casting process.[45]

Figure I-3
Direct chill casting process



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

Rolling

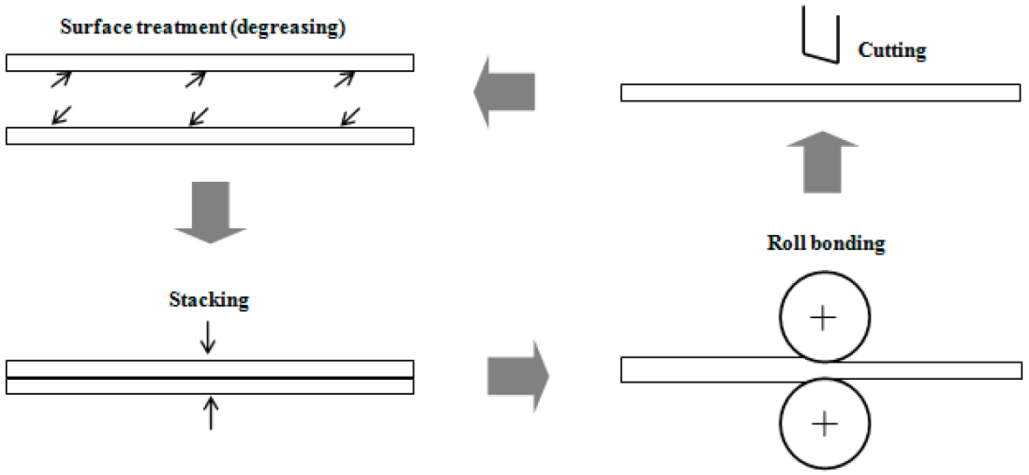
Semi-finished forms of aluminum derived from the continuous casting and direct chill casting processes are reduced in thickness in a rolling mill. Hot rolling and cold rolling are two different methods by which semi-finished forms of aluminum are reduced in thickness between rollers. The major difference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

Certain product subject to these investigations can be alloyed through a cladding process. During this process, clad multi-alloy aluminum sheet is produced through a roll-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

[43] Scalping removes irregularities or undesirable chemical compositions from the surface of the ingot.
[44] Novelis, "Metal Production: DC Casting," http://novelis.com/about-us/metal-production/#1444741293585-194762c7-e276, accessed March 17, 2017.
[45] Conference transcript, p. 144-145 (Wang).

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).

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).

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) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and producer perceptions; (5) channels of distribution; and (6) price. Information regarding these factors for aluminum can stock and brazing stock is discussed below.

The domestic interested party proposes that the like product is common alloy aluminum sheet coextensive with the scope, distinct from aluminum can stock and that it should not be subdivided into other like products.[46] Respondents argue that aluminum can stock should be included in the domestic like product[47] and that aluminum brazing tube stock ("brazing stock") is a separate like product from CAAS.[48]

[46] Domestic interested party's postconference brief, p. 2 and pp. 5-13.
[47] Respondent NMMA, RVIA and CE Smith, postconference brief, p. 4.
[48] Respondent Valeo postconference brief, p. 1.

Aluminum can stock[49]

Physical characteristics and uses

Domestic interested parties argue that aluminum can stock is generally a thinner gauge than CAAS and has more stringent specifications for surface quality and uniformity of gauge. In addition, aluminum can stock is not annealed, while CAAS generally is annealed. Moreover, they argue that while CAAS has a variety of uses, aluminum can stock is used for aluminum beverage cans only.[50]

Respondents argue that aluminum 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 clear dividing line in thickness of can stock versus other aluminum sheet products.[51]

U.S. production of aluminum can stock in 2016 was entirely in coils of 0.200 mm to 0.292 mm, while the vast majority (96.8 percent) of U.S. production of CAAS was in coils greater than 0.292 mm but less than or equal 6.3 mm, while only 2.0 percent was in coils of 0.200 mm to 0.292 mm. Three of the U.S. producers reported that CAAS was produced with H-19 temper, none reported that it was produced with H-41 temper, H-48 temper, or H-391 temper, and one reported that lubricant applied to the flat surface to facilitate movement through machines used in manufacturing. Five U.S. producers reported that aluminum can stock was produced with H-19 temper, none reported it with H-41 temper, two reported it with H-48 temper, one reported it with H-391, and three reported aluminum can stock was produced with lubricant applied.

Manufacturing facilities and production employees

Domestic interested parties contend that aluminum can stock is produced in separate facilities, noting that Constellium produces aluminum can stock in a separate facility from CAAS, and that Novelis produces the vast majority of its aluminum can stock at a separate facility.[52] Moreover, they state that aluminum 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.

Respondents state that the domestic industry has the ability to shift production among aluminum products including CAAS and aluminum can stock.[53]

Four of nine U.S. producers of CAAS responding to the Commission's U.S. producers' questionnaire (***) produce aluminum can stock on the same equipment and machinery used to produce CAAS. ***[54]

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[49] This section of the report focuses on domestically-produced can stock. Only one U.S. importer (***) report importing aluminum can stock from any source during January 2014-September 2017. ***.

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

[51] Respondent NMMA, RVIA and CE Smith postconference brief, p. 8.

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

[53] Respondent NMMA, RVIA and CE Smith postconference brief, pp. 8-9.

[54] *** U.S. producers' questionnaire response, II-13.

Interchangeability

Domestic interested parties argue that aluminum 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 aluminum can stock, end use products from CAAS also have unique physical characteristics and are not interchangeable, and that like these aluminum can stock should not be excluded from the domestic like product based on this.[55]

All nine of the U.S. producers of CAAS responding to the Commission's U.S. producers' questionnaire stated that aluminum can stock is never interchangeable with CAAS. One U.S. importer (***) stated that aluminum can stock is frequently interchangeable with CAAS, five importers stated sometimes, and fifteen importers stated that is was never interchangeable.

Customer and producer perceptions

Domestic interested parties note that aluminum 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 aluminum 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.[56]

Channels of distribution

Domestic interested parties contend that CAAS and aluminum can stock are sold to different channels of distribution. While CAAS is sold to distributors and end-users, aluminum can stock is only sold to firms that manufacture aluminum beverage cans.[57]

Respondents argue that the fact that aluminum 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.[58]

Price

Respondents contend that the price of aluminum can stock falls within a continuum of prices at which other aluminum sheet products are sold.[59] The average unit value for U.S. producers' U.S. shipments of can stock was $2,926 per short ton in 2014 and $2,524 per short ton in 2016, while the average unit value of U.S. producers' U.S. shipments of CAAS was $2,924 per short ton in 2014 and $2,514 in 2016.

[55] Respondent NMMA, RVIA and CE Smith postconference brief, p. 11.
[56] Respondent NMMA, RVIA and CE Smith postconference brief, p. 11.
[57] Conference transcript, p. 23 (Stemple) and p. 44 (Landa).
[58] Respondent NMMA, RVIA and CE Smith postconference brief, p. 12.
[59] Respondent NMMA, RVIA and CE Smith postconference brief, pp. 12-13.

Brazing stock[60]

Physical characteristics and uses

The domestic interested party contends 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.[61]

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.[62] 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.[63]

Manufacturing facilities and production employees

The domestic interested party states 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.[64]

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.[65] [66]

Interchangeability

The domestic interested party argues 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.[67]

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[60] Aluminum brazing tube stock ("brazing stock") is a composite material consisting of sheets of aluminum alloy metallurgically bonded to one another, with the center or "core" alloy generally being much thicker than the outer "clad" layers. It consists of a high-end, often proprietary, core alloy and one or two layers of braze clad. The material is typically 0.05mm to 1.0mm in thickness, of which the cladding generally represents 10% ± 2%. Aluminum brazing tube stock is used in such applications as automotive heat exchangers (HEX) and heating, ventilation, and air conditioning (HVAC). Respondent Valeo postconference brief, p. 5.

[61] Domestic interested party postconference brief, pp. 10-11. Domestic interested note that ***. Email from ***, January 5, 2018.

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

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

[64] Domestic interested party postconference brief, p. 11.

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

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

[67] Respondent Valeo postconference brief, p. 12.

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.[68]

Customer and producer perceptions

The domestic interested party contends that CAAS used in automotive heat exchanger applications is simply one of many applications in which CAAS is consumed.[69]

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.[70]

Channels of distribution

The domestic interested party contends that brazing stock is sold to OEMS, as is other CAAS which is also sold distributors.[71]

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.[72]

Price

The domestic interested party state that prices of brazing sheet is a part of the continuum of prices at which CAAS is sold.[73]

Respondents note that general clad CAAS, and in particular brazing stock, is significantly higher priced that non-clad CAAS.[74]

The average unit value for U.S. producers' U.S. shipments of brazing stock was $*** per short ton in in 2016, while the average unit value of U.S. producers' U.S. shipments of CAAS was $2,514 in 2016.[75]

[68] Respondent Valeo postconference brief, pp. 11-12.
[69] Respondent Valeo postconference brief, p. 12.
[70] Respondent Valeo postconference brief, pp. 11-12.
[71] Domestic interested party postconference brief, pp. 11-12.
[72] Respondent Valeo postconference brief, p. 10.
[73] Respondent Valeo postconference brief, p. 12.
[74] Respondent Valeo postconference brief, pp. 12-13.
[75] U.S. producers' U.S. producer questionnaire responses and email from ***, January 5, 2018.

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, which is determined by its alloy series, alloying metal, and the properties of each specific alloy.

U.S. producers and importers also internally consume aluminum sheet. In 2016, 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 aluminum sheet increased during 2014-16. Overall, apparent U.S. consumption in 2016 was 4.6 percent higher than in 2014.

CHANNELS OF DISTRIBUTION

U.S. producers sold 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.[1]

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

Item	Calendar year			January-September	
	2014	2015	2016	2016	2017
	Share of reported shipments (percent)				
U.S. producers' U.S. commercial shipments of CAAS:					
Distributors	38.7	37.7	35.7	35.8	36.6
Converters	28.9	27.6	28.9	27.4	27.7
End users	32.4	34.7	35.4	36.8	35.7
U.S. importers' U.S. commercial shipments of CAAS from China:					
Distributors	***	***	***	***	***
Converters	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of CAAS from all other countries:					
Distributors	***	***	***	***	***
Converters	***	***	***	***	***
End users	***	***	***	***	***

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

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, 7.0 percent of sales were within 100 miles of their

[1] U.S. producer *** describes converters as businesses that purchase large rolls of CAAS and adapt them into usable products that are then sold to end users (e.g., juice pouches and can lids).

production facility, 80.6 percent were between 101 and 1,000 miles, and 12.4 percent were over 1,000 miles. Importers sold 51.2 percent within 100 miles of their U.S. point of shipment, 44.3 percent between 101 and 1,000 miles, and 4.5 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	15
Midwest	9	19
Southeast	9	18
Central Southwest	9	12
Mountain	9	5
Pacific Coast	9	11
Other[1]	1	4
All regions (except Other)	9	5
Reporting firms	9	24

[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

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: U.S. and Chinese industry factors that affect ability to increase shipments into the U.S. market

	Capacity (short tons)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments to all non-U.S. markets, 2016 (percent)	
Country	2014	2016	2014	2016	2014	2016	Home market shipments	Third country export markets
United States	1,575,550	1,542,800	84.8	80.4	15.3	17.1	--	5.8
China	***	***	***	***	***	***	***	***

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

U.S. supply

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 U.S.-produced CAAS to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories, ability to shift shipments from inventories, ability to shift production to or from alternate products. The factor

mitigating responsiveness of supply is the limited ability to shift shipments from alternate markets.

Industry capacity

Domestic capacity utilization decreased by 4.4 percent between 2014 and 2016. Domestic capacity utilization decreased from 84.8 percent in 2014 to 80.4 percent in 2016, with capacity decreasing by 2.1 percent and production decreasing by 7.2 percent over the same period. This relatively moderate level of capacity utilization suggests that U.S. producers may have some ability to increase production of CAAS in response to an increase in prices.

Alternative markets

U.S. producers' exports, as a percentage of total shipments, remained unchanged at 5.8 percent between 2014 and 2016. At this level, U.S. producers may have limited ability to shift shipments between the U.S. market and other markets in response to price changes.

Inventory levels

U.S. producers' inventories slightly increased between 2014 and 2016. Relative to total shipments, U.S. producers' inventory levels increased from 15.3 percent in 2014 to 17.1 percent in 2016. These inventory levels suggest that U.S. producers may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

Six of 9 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 sheet, and automotive sheet.

Subject imports from China[2]

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

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

Industry capacity

China capacity utilization increased from 83.2 percent in 2014 to 92.9 percent in 2016, with both capacity and production increasing over the same period. This relatively high level of capacity utilization suggests that Chinese producers may have limited ability to increase production of CAAS in response to an increase in prices.

Alternative markets

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

Inventory levels

Responding Chinese firms' inventories remained relatively unchanged. Relative to total shipments, inventory levels decreased from 4.4 percent in 2014 to 4.0 percent in 2016. These inventory levels suggest that responding foreign firms may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

Two of four responding foreign producers stated that they could switch production from CAAS to other products. Other products that responding foreign producers reportedly can produce on the same equipment as CAAS are can stock and out-of-scope alloy series.

Nonsubject imports

Imports of CAAS from nonsubject sources accounted for 63.7 percent of total U.S. imports in 2016. The largest sources of nonsubject imports during 2014-16 were Canada, Bahrain, and Germany. Combined, these countries accounted for 34.2 percent of CAAS imports from nonsubject sources in 2016.

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 or less applicable for certain end uses and industries. As a result, different series may exhibit different demand patterns reflecting different demand trends of these industries.[3]

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, commercial transportation, residential siding, gutters and downspouts, distributors, general fabrication, and HVAC equipment. CAAS accounts for a moderate-to-large share of the cost of the end-use products in which it is used. Reported cost shares for some end uses were as follows:

- Wire roof coil: 35 to 65 percent
- Common alloy coil: 25 to 75 percent
- Auto heat shield: 30 to 70 percent,
- Commercial transportation: 20 to 80 percent
- Building and constructions: 10 to 90 percent
- General fabrication: 10 to 90 percent
- HVAC equipment: 5 to 95 percent.

Business cycles

Four of 9 U.S. producers and 14 of 34 importers 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 high sales and demand for CAAS.

Demand trends

Most firms reported an increase in U.S. demand for CAAS since January 1, 2014 (table II-4).

[3] For more information on alloy series and their end uses, please see Part I of this report.

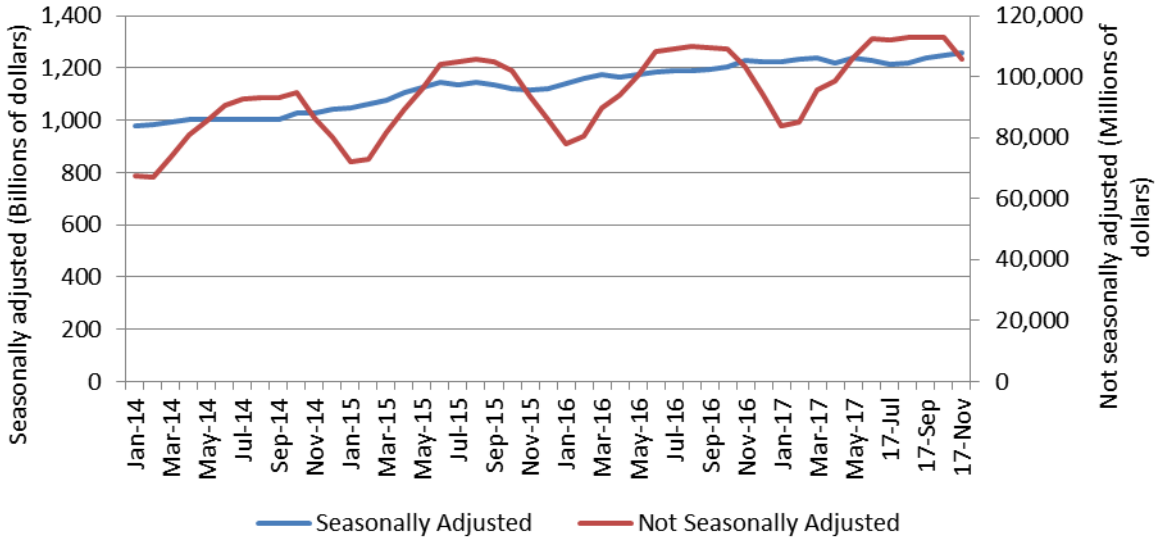
Table II-4
CAAS: Firms' responses regarding U.S. demand and demand outside the United States

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	6	---	---	3
Importers	20	4	1	5
Demand outside the United States				
U.S. producers	2	---	---	3
Importers	6	3	3	4

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

U.S. demand for CAAS is driven by the construction and automotive markets, in addition to a number of other industries. Between January 2014 and November 2017, overall construction spending increased. The total value of construction put in place (seasonally adjusted) increased by 28.6 percent between January 2014 and November 2017 (figure II-1).[4]

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 2014-November 2017

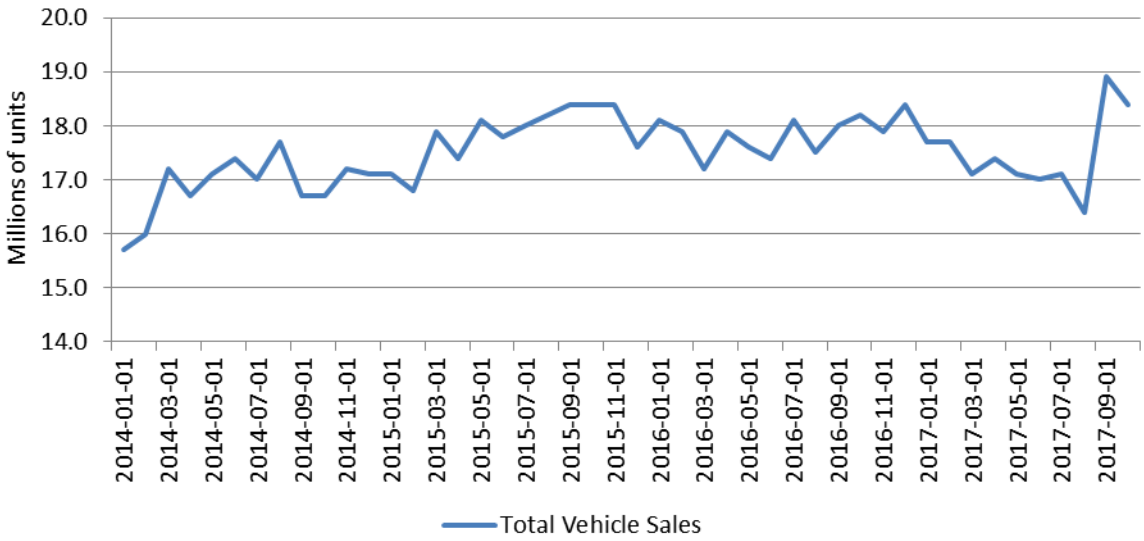


Source: U.S. Census Bureau, retrieved January 3, 2018.

Between January 2014 and October 2017, the total monthly number of vehicles sold in the United States increased. The monthly total vehicle sales (seasonally adjusted) increased by 17.2 percent between January 2014 and October 2017 (figure II-2).

[4] The total value of construction put in place (not seasonally adjusted) increased by 56.9 percent during the same period. From September 2014 to September 2017, the total value of construction put in place (seasonally adjusted) increased by 23.1 percent.

Figure II-2
Vehicle sales: Total vehicle sales, millions of units, seasonally adjusted annual rate, monthly, January 2014-October 2017



Source: St. Louis FRED, retrieved December 1, 2017.

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, a very expensive alternative to CAAS. [5]

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 moderate-to-high degree of substitutability between domestically produced CAAS and CAAS imported from subject sources.

Lead times

CAAS is primarily produced-to-order by U.S. producers and sold from inventory by importers. U.S. producers reported that 94.9 percent of their commercial shipments were produced-to-order, with lead times averaging 47 days. The remaining 5.1 percent of their commercial shipments came from inventories, with lead times averaging 11 days. Importers reported that 38.7 percent of their commercial shipments were produced-to-order, with lead

[5] Conference transcript, p. 76 (Carter).

times averaging 120 days. Importers stated that 55.2 percent of their U.S. commercial shipments came from U.S. inventories, with lead times averaging 6 days, and the remaining 6.0 percent of their U.S. commercial shipments came from foreign inventories.[6]

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[7] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for CAAS. The major purchasing factors identified by firms include quality (13 of 16 firms) and price (11 of 16 firms).

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 of CAAS from China, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-5, the vast majority of U.S. producers reported that CAAS from China is "always" interchangeable with domestic product, while the majority of importers stated Chinese product is "frequently" or "sometimes" interchangeable with U.S.-produced sheet. ***, an importer and user of brazing sheet, reports that "***" ***, an importer, reports that domestic CAAS is only available in standard widths that cause waste and inefficiencies in the production of its product, adding that Chinese CAAS can be ordered to specific widths.

Table II-5
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			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. China	7	2	---	---	7	11	11	1
Nonsubject countries comparisons:								
U.S. vs. nonsubject	7	2	---	---	5	12	8	3
China vs. nonsubject	7	2	---	---	5	9	6	3

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

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

[6] ***, a U.S. importer, reported a lead time of *** days from foreign inventories, but reported that these purchases were made at depots throughout the United States.

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

In addition, producers and importers were asked to assess how often differences other than price were significant in sales of CAAS from the United States, China, or nonsubject countries. As seen in table II-6, the vast majority of U.S. producers stated that differences other than price are "never" significant factors between domestic and Chinese CAAS, while the majority of importers stated these differences are "frequently" or "sometimes" significant. Importer *** reports that U.S. mills are changing production to higher series alloy, and either abandoning production of lower series alloys or increasing their prices in order to increase profits. Importers *** all pointed to U.S. producers only supplying industry standard alloys, while Chinese producers are willing to meet specific customer requirements.

Table II-6
CAAS: Significance of differences other than price between CAAS produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. China	---	---	1	7	7	9	11	3
Nonsubject countries comparisons:								
U.S. vs. nonsubject	---	---	1	7	6	8	9	4
China vs. nonsubject	---	---	1	7	4	7	7	3

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

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

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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of nine firms.[1]

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. Nine firms provided usable data on their productive operations.[2]

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

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

[2] Four firms (***) reported that they did not produce CAAS since January 1, 2014. ***. Thus, U.S. producers' data for 2014 and 2015 is modestly understated.

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

Firm	Position on imposition of duties	Production location(s)	Share of production (percent)
Alcoa Warrick	***	Newburgh, Indiana	***
Aleris	***	Lewisport, KY Uhrichsville, 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	***
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[3] and one U.S. producer (***) is related to a U.S. importer of CAAS from ***. In addition, as discussed in greater detail below, one U.S. producer (***) directly imports CAAS from China.

[3] Imports of subject merchandise from *** were *** short tons in 2014 (the equivalent of *** percent of *** domestic production), *** short tons in 2015 (the equivalent of *** percent of ***

(*continued*...)

Recent developments in U.S. industry

Table III-3 highlights recent developments in the domestic industry. Since 2014, 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 U.S. Committee on Foreign Investment in the United States (CFIUS). Two producers laid off workers in late 2014, and one producer was acquired by another producer during the summer of 2016.

Table III-3
CAAS: Important industry events, since January 1, 2014

Year	Month	Company	Description of event
2014	April	Aleris Corporation	**Acquisition:** Aleris announced that it completed its acquisition of Nichols Aluminum, LLC, a producer of aluminum sheet for transportation, building and construction, machinery and equipment, consumer durables, and electrical end uses.[1]
	October		**Expansion:** Aleris began expansion of its sheet operations in Lewisport, Kentucky. The company announced that it would invest $350 million in additional heat treatment and finishing capabilities.[2]
			Closure: Aleris announced that it would close its Decatur, Alabama finishing plant which it had acquired from Nichols Aluminum in 2014.[3]
		Constellium	**Acquisition:** 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.[4]
	December	Noranda Aluminum Holding Corporation	**Layoff:** Noranda Aluminum announced that it would lay off 40 percent of the workforce at its surface treatment and finishing facility in Newport, Arkansas. The facility served the HVAC and food container markets.[5]
2015	March	Aleris Corporation	**Sale:** Aleris announced that it would sell its Alsco coating and fabrication facility at the company's operations in Ashville, Ohio.[6]
	August	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.[7]
	October	Tri Arrows Aluminum, Inc.	**Expansion:** Tri Arrows Aluminum announced the groundbreaking of a $240 million expansion at its Logan Aluminum, Inc. operations in Russellville, Kentucky, with an additional $50 million under consideration.[8]

Table continued on next page.

(…*continued*)
domestic production), and *** short tons in 2016 (the equivalent of *** percent of *** domestic production).

According to *** during January 2014-September 2016.

Table III-3--Continued
CAAS: Important industry events, since January 1, 2014

Year	Month	Company	Description of event
2016	August	Gränges Americas Inc.	**Acquisition:** Gränges acquired Noranda Aluminum Holding Corporation's downstream aluminum rolling assets (including sheet) in the United States.[9]
		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.[10]
	September	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.[11]
	November	Arconic/Alcoa	**Split:** Alcoa Inc. was separated into two standalone companies – Arconic Inc. and Alcoa Corporation.[12]
2017	April	Skana	**Expansion:** Skana completed an expansion of the casthouse at the company's Manitowoc, Wisconsin rolling mill operations.[13]
		Braidy Industries	**New facility:** Braidy Industries announced that it would construct a $1.3 billion greenfield aluminum rolling mill near Ashland, Kentucky.[14]
	May	Tri-Arrows Aluminum, Inc.	**New facility:** Tri-Arrows Aluminum, Inc. announced that it would start construction on a $125 million cold rolling mill in Western Kentucky.[15]
	September	Gränges Americas Inc.	**Investment:** Granges announced that it would invest $110 million into an expansion project of its rolling mill operations in Huntingdon, Tennessee.[16]
	November	Aleris Corporation	**Expansion:** Aleris opened a $400 million sheet production facility in Lewisport, Kentucky.[17]
			Acquisition suspended: Aleris Corporation and Zhongwang USA announced that they their planned merger was suspended after failing to win approval from CFIUS.[18]
		Novelis	**Expansion:** Novelis announced that it would invest $4.5 million at its aluminum rolling operations in Warren, Ohio.[19]

Note.--Arconic's rolling mill operations in Texarkana, Arkansas have been idle since September 2009.

Footnotes continued on next page.

Table III-3--Continued
CAAS: Important industry events, since January 1, 2014

[1] http://investor.aleris.com/2014-04-01-Aleris-Completes-Acquisition-Of-Nichols-Aluminum, (accessed December 8, 2017).
[2] Aleris, "News Releases: Aleris Breaks Ground on $350 Million Automotive Expansion in Lewisport, Kentucky," October 29, 2014, http://investor.aleris.com/2014-10-29-Aleris-Breaks-Ground-on-350-Million-Automotive-Expansion-in-Lewisport-Kentucky, (accessed December 8, 2017).
[3] Alabama.com, "Aleris International Announces Nichols Aluminum Plant Closure, 95 Jobs Cut in Decatur," October 15, 2014, http://www.al.com/business/index.ssf/2014/10/aleris_international_announces.html, (accessed December 18, 2017).
[4] Constellium, "Constellium Acquires Wise Metals and is to Become a Leader in the North American Body-in-White Market," October 3, 20[1] Aleris, News Releases: Aleris Completes Acquisition of Nichols Aluminum," April 1, 2014, 14, http://www.constellium.com/media/news-and-press-releases/press-releases-only/wise-metals-biw-acquisition, (accessed December 18, 2017).
[5] Region 8 Newsdesk (KAIT* 8), "Noranda Aluminum to Layoff 40% of Newport Workforce," December 3, 2014, http://www.kait8.com/story/27539802/noranda-aluminum-to-layoff-40-of-newport-workforce, (accessed December 15, 2017).
[6] 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).
[7] 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).
[8] Tri-Arrows Aluminum Inc., "Press Release: Tri Arrows Aluminum Announces Expansions of Logan Aluminum in Russellville, KY," October 28, 2015, https://triaa.com/Press/Logan-Aluminum, (accessed December 8, 2017).
[9] 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).
[10] 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).
[11] Constellium, "Constellium and UACJ Announce Opening of their Joint Venture's Automotive Body Sheet Plant in Bowling Green, Kentucky," September 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).
[12] Arconic, "Arconic Launches as Strong Standalone Company: Global Leader in Multi-Materials Innovation, Precision Engineering and Advanced Manufacturing," https://www.arconic.com/global/en/news/pdf/press_release/ARNC-Launches-Nov-1.pdf (accessed December 28, 2017).
[13] Skana, "Who We Are," http://www.skanaaluminum.com/about.html, (accessed December 8, 2017).
[14] Business Wire, "Braidy Industries Inc. to Spend $1.3 Billion to Build the Highest Quality, Lowest Cost Auto Body Sheet and Aerospace Plate Aluminum Rolling Mill in the United States," April 26, 2017, https://www.businesswire.com/news/home/20170426006215/en/Braidy-Industries-Spend-1.3-Billion-Build-Highest, (accessed December 29, 2017).
[15] Aluminum Insider, "Tri-Arrows Commits $125 Million in Building Cold-Rolling Mill at Logan Aluminum," May 26, 2017, https://aluminiuminsider.com/tri-arrows-commits-us125-mm-building-cold-rolling-mill-logan-aluminum/, (accessed December 14, 2017).
[16] 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).
[17] 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).
[18] 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).
[19] 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).

Source: Various news articles (cited above).

Table III-4 presents U.S. producers' reported changes in operations since January 1, 2014.

Table III-4
CAAS: U.S. producers' reported changes in operations, since January 1, 2014

* * * * * * *

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 fluctuated during 2014-16, increasing by 0.5 percent between 2014 and 2015 and then declining by 2.6 percent in 2016, ending 2.1 percent lower than in 2014. Capacity was 1.4 percent higher in January-September 2017 compared with January-September 2016. The decline between 2014 and 2016, and higher level in January-September 2017 was largely due to *** which stated that ***.[4]

U.S. producers' production decreased by 7.9 percent between 2014 and 2015 and then increased by 0.8 percent in 2016, ending 7.2 percent lower than in 2014. Production was 1.8 percent higher in January-September 2017 compared with January-September 2016. The decline between 2014 and 2016, and the higher level in January-September 2017, was largely ***. Aleris stated that it had shifted some of its production to lower volume niche products.[5]

Capacity utilization declined by 7.1 percentage points between 2014 and 2015 and then increased by 2.7 percentage points in 2016, ending 4.4 percentage points lower than in 2014. Capacity utilization was 0.4 percentage points higher in January-September 2017 compared with January-September 2016.

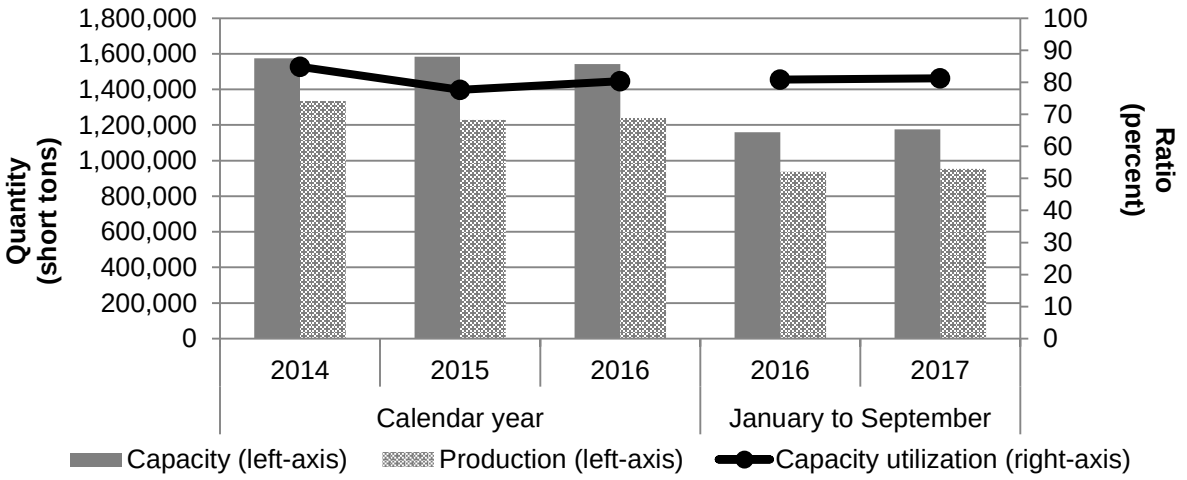
[4] Email from ***, December 19, 2017.
[5] Conference transcript, p. 28 (Clegg).

Table III-5
CAAS: U.S. producers' production, capacity, and capacity utilization, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Capacity (short tons)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Skana	***	***	***	***	***
Total capacity	1,575,550	1,584,050	1,542,800	1,159,269	1,175,269
	Production (short tons)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Skana	***	***	***	***	***
Total production	1,336,212	1,230,158	1,239,737	937,504	954,661
	Capacity utilization (percent)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Skana	***	***	***	***	***
Average capacity utilization	84.8	77.7	80.4	80.9	81.2

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

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



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

Table III-6 presents U.S. producers' production by specification. The vast majority of U.S. CAAS production in 2016 was greater than 0.292 mm to 6.3 mm in coils (reported by all nine firms). Two firms produced sheets greater than 0.292 mm to 6.3 mm and six firms produced coils in 0.200 mm to 0.292 mm.

Table III-6
CAAS: U.S. producers' production, by gauge and form, 2016

Item	Quantity (short tons)	Share of quantity (percent)
U.S. production: 0.200 mm to 0.292 mm: coils	***	***
0.200 mm to 0.292 mm: sheet	***	***
0.200 mm to 0.0292 mm	***	***
Greater than 0.292 mm to 6.3 mm: coils	***	***
Greater than 0.292 mm to 6.3 mm: sheet	***	***
Greater than 0.292 mm to 6.3 mm	***	***
All gauges and forms	1,239,737	100.0

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

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.[6] As shown in table III-7, 30.9 percent of the product produced in 2016 by U.S. producers was subject CAAS. Four firms (***) reported producing aluminum can stock, which accounted for the largest share of production on shared plant capacity during January 2014-September 2017. Overall capacity utilization during 2014-16 ranged from 87.0 to 88.5 percent, while CAAS capacity utilization ranged from 77.7 from 84.8 percent. Overall capacity was 0.5 percent lower in January-September 2017 compared with January-September 2016. During January-September 2017 ***.[7]

Table III-7
CAAS: U.S. producers' overall plant capacity and production on the same equipment as subject production, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
Overall capacity	4,446,044	4,519,241	4,529,576	3,399,215	3,474,555
Production:					
CAAS	1,336,212	1,230,158	1,239,737	937,504	954,661
Out-of-scope production:					
Aluminum can stock	***	***	***	***	***
Aluminum foil	***	***	***	***	***
Aluminum plate	***	***	***	***	***
Other products	***	***	***	***	***
Subtotal, out-of-scope production	2,583,955	2,702,972	2,769,386	2,119,899	2,150,747
Total production on same machinery	3,920,167	3,933,130	4,009,123	3,057,403	3,105,408
	Ratios and shares (percent)				
Overall capacity utilization	88.2	87.0	88.5	89.9	89.4
Production:					
CAAS	34.1	31.3	30.9	30.7	30.7
Out-of-scope production:					
Aluminum can stock	***	***	***	***	***
Aluminum foil	***	***	***	***	***
Aluminum plate	***	***	***	***	***
Other products	***	***	***	***	***
Subtotal, out-of-scope production	65.9	68.7	69.1	69.3	69.3
Total production on same machinery	100.0	100.0	100.0	100.0	100.0

Note.—Other products include auto coil, auto body sheets, aero coil, reroll, and other heat treat products.

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

[6] Domestic interested party's postconference brief, Answers to Staff questions, p. 6.
[7] Emails from ***, January 2, 2018 and January 3, 2018.

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

Table III-8 presents U.S. producers' U.S. shipments, export shipments, and total shipments. One firm, ***, reported internal consumption,[8] none reported transfers to related firms, and seven firms (all but ***) reported exports to ***. U.S. producers' U.S. shipments, by quantity, declined by 6.5 percent between 2014 and 2016, declining by 6.0 percent in 2015 and by 0.6 percent in 2016, but were ***. Three U.S. producers (***) accounted for the majority of the decline between 2014 and 2016, while the higher quantity in January-September 2017 was largely due to ***. Several firms including Aleris, Arconic, Constellium, and Novelis, reported that they curtailed U.S. shipments of CAAS due to lower priced CAAS imports from China.[9]

Average unit values of U.S. commercial shipments followed a similar pattern, declining by 7.4 percent in 2015 and by 7.2 percent in 2016, but were 12.8 percent higher in January-September 2017 compared with January-September 2016. All U.S. producers followed this pattern, albeit at different rates. Arconic noted that during January-September 2017, ***.[10] Constellium attributed ***.[11]

[8] Accounting for *** to *** percent of U.S. producer's U.S. shipments, by quantity, during January 2014-September 2017.

[9] Conference transcript, p. 21 (Stemple), p. 27 (Keown), pp. 30-31 (Boittiaux), and p. 40 (Landa).

[10] Email from ***, December 20, 2017.

[11] Email from ***, December 20, 2017.

Table III-8
CAAS: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
U.S. shipments	1,232,479	1,158,598	1,152,061	878,895	887,698
Export shipments	76,250	76,459	71,069	56,265	54,337
Total shipments	1,308,729	1,235,057	1,223,130	935,160	942,035
	Value (1,000 dollars)				
U.S. shipments	3,603,552	3,137,044	2,895,742	2,207,063	2,514,351
Export shipments	229,024	269,780	185,563	146,152	157,424
Total shipments	3,832,576	3,406,824	3,081,305	2,353,215	2,671,775
	Unit value (dollars per short ton)				
U.S. shipments	2,924	2,708	2,514	2,511	2,832
Export shipments	3,004	3,528	2,611	2,598	2,897
Total shipments	2,928	2,758	2,519	2,516	2,836
	Share of quantity (percent)				
U.S. shipments	94.2	93.8	94.2	94.0	94.2
Export shipments	5.8	6.2	5.8	6.0	5.8
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipments	94.0	92.1	94.0	93.8	94.1
Export shipments	6.0	7.9	6.0	6.2	5.9
Total shipments	100.0	100.0	100.0	100.0	100.0

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

Table III-9 presents U.S. producers' U.S. shipments, by type. The majority of U.S. producers' U.S. shipments in 2016 were of non-clad 3XXX series, followed by non-clad 5XXX series. Eight firms had U.S. shipments of non-clad 1XXX series, eight of non-clad 3XXX series, six of non-clad 5XXX series, two (***) of clad or multi-alloy, and two (***) of other products.

Table III-9
CAAS: U.S. producers' U.S. shipments, by type, 2016

Item	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)	Share of quantity (percent)
U.S. producers' U.S. shipments.-- Non-clad 1XXX series	91,062	224,535	2,466	7.9
Non-clad 3XXX series	696,262	1,656,904	2,380	60.4
Non-clad 5XXX series	319,873	893,717	2,794	27.8
Clad or multi-alloy	***	***	***	***
Other products	***	***	***	***
All products	1,152,061	2,895,742	2,514	100.0

Note.—Other products include ***.

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

U.S. PRODUCERS' INVENTORIES

Table III-10 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 fluctuated during 2014-16, ending 5.8 percent higher in 2016 than in 2014, and were 14.7 percent higher in January-September 2017 compared with January-September 2016. The ratios of inventories to U.S. production, U.S. shipments, and total shipments increased between 2014 and 2016, and were higher in January-September 2017 compared with January-September 2016.

*** accounted for the majority of the increase in inventories and had the second highest ratio of inventories to U.S. production, U.S. shipments, and total shipments (after Arconic, the second largest U.S. producer).

Table III-10
CAAS: U.S. producers' inventories, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
U.S. producers' end-of-period inventories	200,524	195,626	212,233	199,071	228,396
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	15.0	15.9	17.1	15.9	17.9
U.S. shipments	16.3	16.9	18.4	17.0	19.3
Total shipments	15.3	15.8	17.4	16.0	18.2

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

U.S. PRODUCERS' IMPORTS

U.S. producers' imports and purchases of CAAS are presented in table III-11. *** was the only U.S. producer to import CAAS from China. *** ratio to U.S. production of imports from subject sources was not greater than *** percent in any period. ***. U.S. imports of CAAS from China by ***.

Table III-11
CAAS: U.S. producers' U.S. production, imports and purchases, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-12 shows U.S. producers' employment-related data. The number of production and related workers ("PRWs") decline by 192 between 2014 and 2016, but was 81 higher in January-September 2017 compared with January-September 2016. Two firms, ***, accounted for the majority of the decline in PRWs between 2014 and 2016. ***.[12] ***.[13] The other employment factors shown in the table fluctuated over the period, with total hours worked, wages paid, and productivity lower in 2016 than in 2014, while hours worked per PRW, hourly wages, and unit labor costs were higher. All employment factors, except productivity, were higher in January-September 2017 compared to January-September 2016.

Table III-12
CAAS: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
Production and related workers (PRWs) (number)	5,664	5,519	5,472	5,371	5,452
Total hours worked (1,000 hours)	12,493	13,420	12,282	8,918	9,176
Hours worked per PRW (hours)	2,206	2,432	2,245	1,660	1,683
Wages paid ($1,000)	367,608	393,487	366,443	271,881	291,356
Hourly wages (dollars per hour)	$29.43	$29.32	$29.84	$30.49	$31.75
Productivity (short tons per 1,000 hours)	107.0	91.7	100.9	105.1	104.0
Unit labor costs (dollars per short tons)	$275	$320	$296	$290	$305

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

[12] *** response to U.S. producers' questionnaire, and email from ***, December 20, 2017.
[13] Email from ***, December 19, 2017.

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

U.S. IMPORTERS

The Commission issued importer questionnaires to 170 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 38 companies, including nine of the top 10 importers of CAAS from China and six of the top 10 importers of CAAS from all other sources.[2] 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 2016.

[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 2014-2016 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."

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

Firm	Headquarters	Share of imports by source (percent)		
		China	Nonsubject sources	All import sources
AA Metals	Orlando, FL	***	***	***
AGFA	Elmwood Park, NJ	***	***	***
Albert	Bremen, BR	***	***	***
Alucoil	Manning, SC	***	***	***
Amag Rolling	Ransofen,	***	***	***
Amcor	St-Cesaire, QC	***	***	***
Argosy	New York, NY	***	***	***
CE Smith	Greensboro, NC	***	***	***
CMC	Irving, TX	***	***	***
DNP America	New York, NY	***	***	***
Empire	Fort Lee, NJ	***	***	***
Galex	Monsey, NY	***	***	***
Garmco	Winter Garden, FL	***	***	***
Hanon Netherlands	Heerlen, Netherlands,	***	***	***
Hanon Systems Alabama	Shorter, AL	***	***	***
Hudson	Morristown, NJ	***	***	***
Hunter Douglas	Homewood, IL	***	***	***
Ideal	Malvern, PA	***	***	***
Jupiter	Des Plaines, IL	***	***	***
JW Aluminum	Goose Creek, SC	***	***	***
LLFlex	Louisville, KY	***	***	***
Mahle Behr	Troy, MI	***	***	***
Manakin	Manakin-Sabot, VA	***	***	***
Medalco	South Hadley, MA	***	***	***
Metal Exchange	St. Louis, MO	***	***	***
Meyer	Sheboygan Falls, WI	***	***	***
MT Metal Trading	City Of Industry, CA	***	***	***
Nanshan	Lafayette, IN	***	***	***
Norca Heat Transfer	Lake Success, NY	***	***	***
Novelis	Atlanta, GA	***	***	***
Phoenix	Norcross, GA	***	***	***
Ryerson	Chicago, IL	***	***	***
Samuel	Mississauga, Ontario, Canada,	***	***	***
Sumitomo	Rosemont, IL	***	***	***
Ta Chen	Long Beach, CA	***	***	***
Toyota Tsusho	Georgetown, KY	***	***	***
Valeo	Troy, MI	***	***	***
Vulcan	Gardena, 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 45.3 percent between 2014 and 2016, increasing by 42.0 percent in 2015 and by 2.3 percent in 2016, and were 34.1 percent higher in January-September 2017 compared with January-September 2016. U.S. imports from China, by value, increased by 24.7 percent between 2014 and 2016, increasing by 40.4 percent in 2015 and declining by 11.2 percent in 2016, and were 51.7 percent higher in January-September 2017 compared with January-September 2016.

U.S. imports from nonsubject sources exhibited similar trends for both quantity and value, ending 15.8 and 3.8 percent higher, respectively in 2016 than in 2014. U.S. imports from nonsubject sources, by quantity, increased by 11.4 percent in 2015 and by 4.0 percent in 2016, and were 10.6 percent higher in January-September 2017 compared with January-September 2016. U.S. imports from nonsubject sources, by value, increased by 9.7 percent in 2015 and declined by 5.3 percent in 2016, and were 14.8 percent higher in January-September 2017 compared with January-September 2016.

Average unit values of U.S. imports from China and nonsubject sources declined between 2014 and 2016 but were higher in January-September 2017 than in January-September 2016. Average unit values of U.S. imports from China were consistently below those of U.S. imports from nonsubject sources, ranging from $442 per short ton lower in January-September 2017 to $619 per short ton lower in January-September 2016.[3]

U.S. imports from China and nonsubject source as a ratio to U.S. production increased by 8.8 and 8.5 percent, respectively, between 2014 and 2016, with the largest increase in 2015. These ratios were also higher (7.8 and 3.7 percent, respectively) in January-September 2017 compared to January-September 2016.

[3] Appendix D presents quarterly U.S. import data of clad and non-clad CAAS, including average unit values.

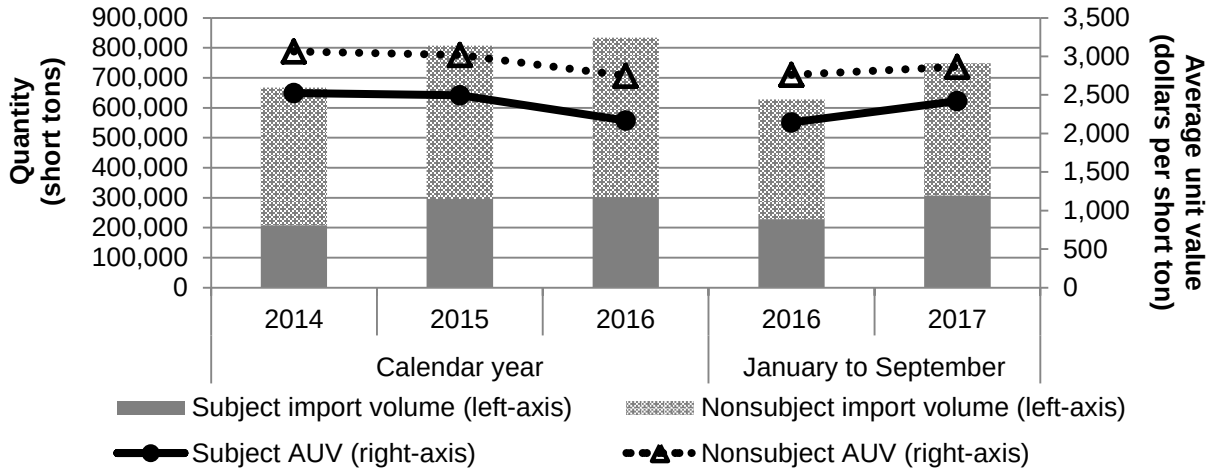
Table IV-2
CAAS: U.S. imports by source, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
U.S. imports from.--China	208,744	296,495	303,270	229,342	307,638
Nonsubject sources	458,926	511,084	531,439	399,569	441,866
All import sources	667,670	807,579	834,708	628,911	749,504
	Value (1,000 dollars)				
U.S. imports from.--China	526,760	739,731	656,865	491,111	745,252
Nonsubject sources	1,406,340	1,542,756	1,460,422	1,103,024	1,265,724
All import sources	1,933,100	2,282,487	2,117,287	1,594,135	2,010,976
	Unit value (dollars per short ton)				
U.S. imports from.--China	2,523	2,495	2,166	2,141	2,422
Nonsubject sources	3,064	3,019	2,748	2,761	2,865
All import sources	2,895	2,826	2,537	2,535	2,683
	Share of quantity (percent)				
U.S. imports from.--China	31.3	36.7	36.3	36.5	41.0
Nonsubject sources	68.7	63.3	63.7	63.5	59.0
All import sources	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from.--China	27.2	32.4	31.0	30.8	37.1
Nonsubject sources	72.8	67.6	69.0	69.2	62.9
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--China	15.6	24.1	24.5	24.5	32.2
Nonsubject sources	34.3	41.5	42.9	42.6	46.3
All import sources	50.0	65.6	67.3	67.1	78.5

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Compiled from official U.S. import statistics using 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 December 19, 2017.

Figure IV-1
CAAS: U.S. imports quantity and average unit values, by source, 2014-16, January to September 2016, and January to September 2017



Source: Compiled from official U.S. import statistics using 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 December 19, 2017.

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 21.6 percent of nonsubject imports in 2014 to a low of 16.7 percent in January-September 2017.

Table IV-3
CAAS: U.S. imports by nonsubject source, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
U.S. imports from.--					
Canada	143,911	164,526	173,984	132,271	125,515
Bahrain	33,724	38,543	56,427	43,405	45,483
Germany	52,593	60,461	54,949	42,798	25,583
South Africa	35,699	30,922	44,597	34,528	28,877
Indonesia	56,910	73,196	36,972	23,994	52,389
Japan	6,440	19,995	25,305	19,258	13,105
India	29,146	17,938	24,920	18,645	35,473
All other nonsubject sources	100,505	105,504	114,285	84,669	115,441
All nonsubject sources	458,926	511,084	531,439	399,569	441,866
	Share of total U.S. imports (percent)				
U.S. imports from.--					
Canada	21.6	20.4	20.8	21.0	16.7
Bahrain	5.1	4.8	6.8	6.9	6.1
Germany	7.9	7.5	6.6	6.8	3.4
South Africa	5.3	3.8	5.3	5.5	3.9
Indonesia	8.5	9.1	4.4	3.8	7.0
Japan	1.0	2.5	3.0	3.1	1.7
India	4.4	2.2	3.0	3.0	4.7
All other nonsubject sources	15.1	13.1	13.7	13.5	15.4
All nonsubject sources	68.7	63.3	63.7	63.5	59.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Compiled from official U.S. import statistics using 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 December 19, 2017.

Monthly U.S. imports

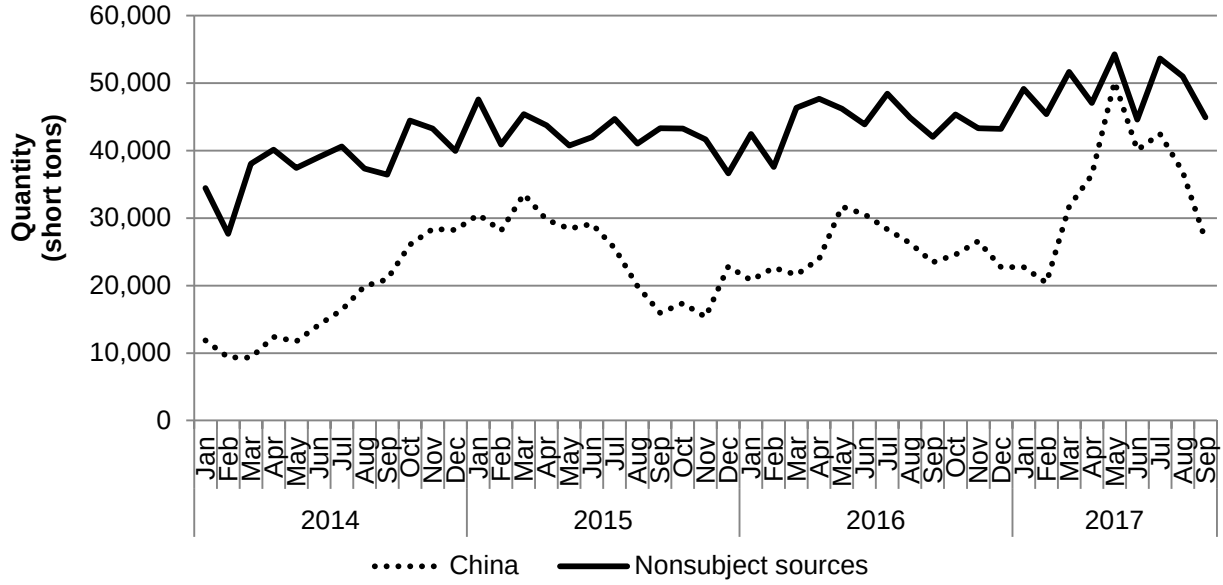
Table IV-4 and figure IV-2 present data for monthly U.S. imports.

Table IV-4
CAAS: Monthly U.S. imports, by source, January 2014 - October 2017

Month	Calendar year			
	2014	2015	2016	2017
	China			
U.S. imports in.--				
January	11,872	30,504	20,776	22,732
February	9,342	28,130	22,632	20,429
March	9,319	33,571	21,601	31,714
April	12,376	29,744	23,965	36,392
May	11,727	28,415	31,711	50,191
June	14,212	29,144	30,572	40,079
July	16,401	25,516	28,323	42,457
August	19,914	19,924	26,288	36,853
September	20,923	15,967	23,474	26,792
October	26,040	17,397	24,611	24,735
November	28,373	15,328	26,580	
December	28,244	22,855	22,736	
All months (available)	208,744	296,495	303,270	332,373
	Nonsubject sources			
U.S. imports in.--				
January	34,472	47,594	42,448	49,176
February	27,669	40,901	37,569	45,401
March	38,073	45,419	46,377	51,692
April	40,143	43,763	47,707	47,074
May	37,443	40,775	46,213	54,282
June	39,044	41,987	43,883	44,626
July	40,618	44,701	48,449	53,669
August	37,347	41,045	44,877	51,000
September	36,443	43,327	42,046	44,947
October	44,450	43,275	45,342	55,597
November	43,286	41,675	43,310	
December	39,938	36,623	43,218	
All months (available)	458,926	511,084	531,439	497,462

Source: Compiled from official U.S. import statistics using 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 December 19, 2017.

Figure IV-2
CAAS: Monthly U.S. imports, January 2014 through October 2017



Source: Compiled from official U.S. import statistics using 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 December 19, 2017.

U.S. imports by gauge and form

Table IV-5 and figure IV-3 present data for U.S. imports by gauge and form.[4] The majority of reported U.S. imports of CAAS from China and from nonsubject sources were of 0.292 mm to 6.3 mm in coils, followed by 0.292 mm to 6.3 mm in sheet. These two combinations accounted for 98.5 percent of U.S. imports from China and 90.9 percent of imports from nonsubject sources.

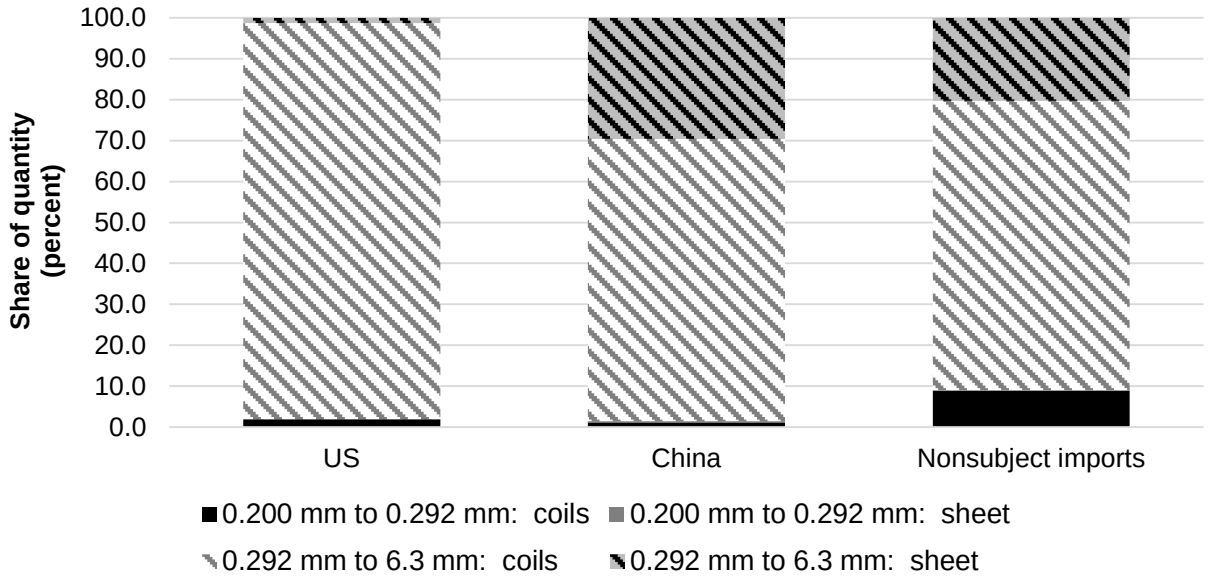
[4] Importers *** did not provide these data.

Table IV-5
CAAS: U.S. imports by gauge and form, 2016

Item	Quantity (short tons)	Share of quantity (percent)
	China	
U.S. imports:		
0.200 mm to 0.292 mm: coils	***	1.2
0.200 mm to 0.292 mm: sheet	***	0.3
0.200 mm to 0.0292 mm	***	1.5
Greater than 0.292 mm to 6.3 mm: coils	***	68.9
Greater than 0.292 mm to 6.3 mm: sheet	***	29.6
Greater than 0.292 mm to 6.3 mm	***	98.5
All gauges and forms	***	100.0
	Nonsubject sources	
U.S. imports:		
0.200 mm to 0.292 mm: coils	***	8.9
0.200 mm to 0.292 mm: sheet	***	0.1
0.200 mm to 0.0292 mm	***	9.1
Greater than 0.292 mm to 6.3 mm: coils	***	70.7
Greater than 0.292 mm to 6.3 mm: sheet	***	20.2
Greater than 0.292 mm to 6.3 mm	***	90.9
All gauges and forms	***	100.0
	All import sources	
U.S. imports:		
0.200 mm to 0.292 mm: coils	***	4.5
0.200 mm to 0.292 mm: sheet	***	0.3
0.200 mm to 0.0292 mm	***	4.7
Greater than 0.292 mm to 6.3 mm: coils	***	69.7
Greater than 0.292 mm to 6.3 mm: sheet	***	25.6
Greater than 0.292 mm to 6.3 mm	***	95.3
All gauges and forms	***	100.0

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

Figure IV-3
CAAS: U.S. producers' production and U.S. importers' imports, by gauge and form, and source, 2016



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

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

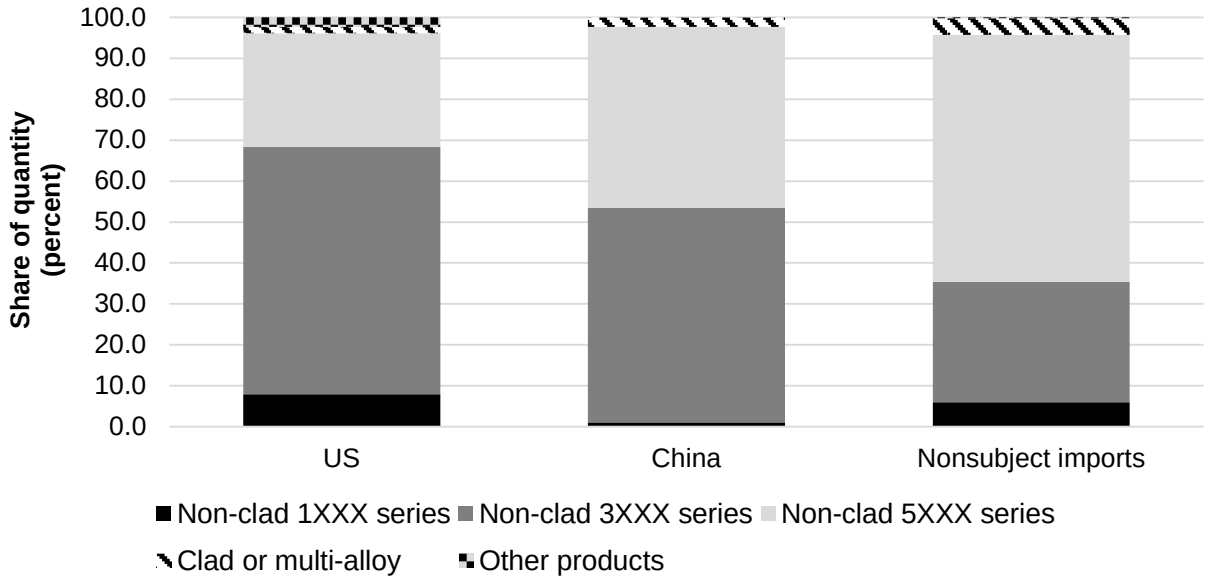
Table IV-6 and figure IV-4 present data for U.S. importers' U.S. shipments by product type. The largest share of reported U.S. shipments of U.S. imports from China were non-clad 3XXX series, followed by non-clad 5XXX series, while the largest share of U.S. shipments of U.S. imports from nonsubject sources were 5XXX series, followed by non-clad 3XXX series. Only three firms imported clad or multi-alloy from China (***) and 5 firms imported clad or multi-alloy from nonsubject sources (***).

Table IV-6
CAAS: U.S. importers' U.S. shipments by product type, 2016

Item	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)	Share of quantity (percent)
	China			
U.S. importers' U.S. shipments: China.--				
Non-clad 1XXX series	***	***	***	1.0
Non-clad 3XXX series	***	***	***	52.3
Non-clad 5XXX series	***	***	***	44.3
Clad or multi-alloy	***	***	***	2.3
Other products	***	***	***	0.0
All products	***	***	***	100.0
	Nonsubject sources			
U.S. importers' U.S. shipments: Nonsubject sources.--				
Non-clad 1XXX series	***	***	***	5.9
Non-clad 3XXX series	***	***	***	29.4
Non-clad 5XXX series	***	***	***	60.4
Clad or multi-alloy	***	***	***	4.1
Other products	***	***	***	0.2
All products	***	***	***	100.0
	All import sources			
U.S. importers' U.S. shipments: All import sources.--				
Non-clad 1XXX series	***	***	***	3.4
Non-clad 3XXX series	***	***	***	41.2
Non-clad 5XXX series	***	***	***	52.1
Clad or multi-alloy	***	***	***	3.2
Other products	***	***	***	0.1
All products	***	***	***	100.0

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

Figure IV-4
CAAS: U.S. producers' and U.S. importers' U.S. shipments, by type and source, 2016



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 Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like CAAS 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 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 39.5 percent of total imports of CAAS by quantity during October 2016 through November 2017.

[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)).

APPARENT U.S. CONSUMPTION AND U.S. MARKET SHARES

Table IV-7 and figure IV-5 present data on apparent U.S. consumption and U.S. market shares for CAAS. Apparent U.S. consumption, by quantity, increased by 3.5 percent between 2014 and 2015, and then increased by 1.0 percent in 2016, and was 8.6 percent higher in January-September 2017 compared with January-September 2016. Apparent U.S. consumption, by value, declined by 2.1 percent between 2014 and 2015, and declined by 7.5 percent in 2016, but was 19.1 percent higher in January-September 2017 compared with January-September 2016. U.S. producers' share of apparent U.S. consumption, by quantity, declined by 5.9 percentage points in 2015 and by 0.9 percentage points in 2016 and was 4.1 percentage points lower in January-September 2017 compared with January-September 2016. The share of U.S. imports from China increased by 4.1 percentage points in 2015 and by 0.2 percentage points in 2016, while the share of U.S. imports from nonsubject sources also increased by 1.8 percentage points in 2015 and by 0.8 percentage points in 2016. The share of imports from China and nonsubject sources were higher in January-September 2017 compared with January-September 2016, by 3.6 percentage points and 0.8 percentage points, respectively.

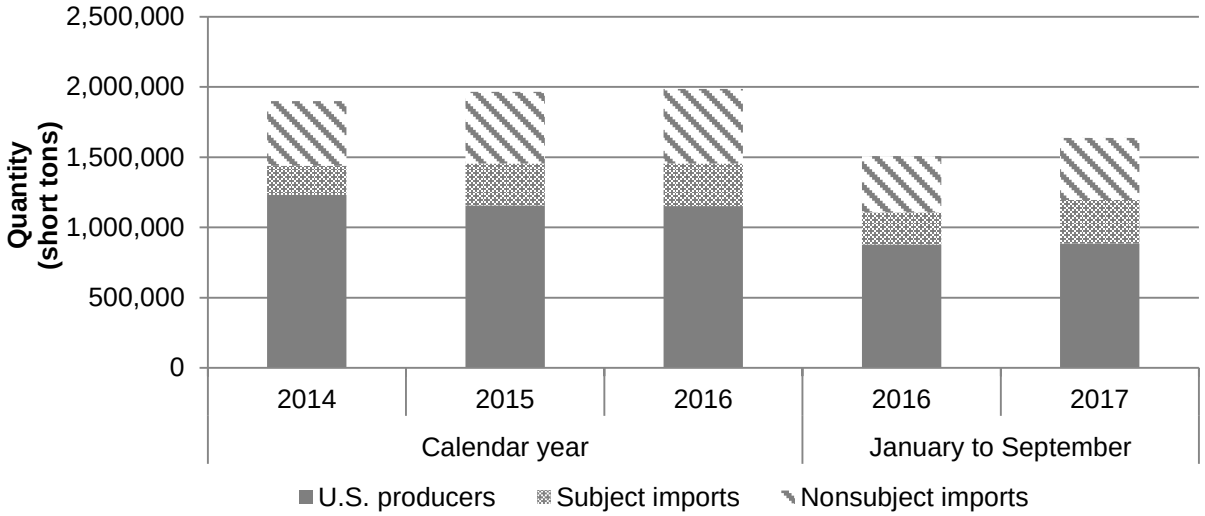
Table IV-7
CAAS: Apparent U.S. consumption, 2014-16, January to September 2016, and January to September 2017

Item	Calendar year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
U.S. producers' U.S. shipments	1,232,479	1,158,598	1,152,061	878,895	887,698
U.S. imports from.--					
China	208,744	296,495	303,270	229,342	307,638
Nonsubject sources	458,926	511,084	531,439	399,569	441,866
All import sources	667,670	807,579	834,708	628,911	749,504
Apparent U.S. consumption	1,900,149	1,966,177	1,986,769	1,507,806	1,637,202
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	3,603,552	3,137,044	2,895,742	2,207,063	2,514,351
U.S. imports from.--					
China	526,760	739,731	656,865	491,111	745,252
Nonsubject sources	1,406,340	1,542,756	1,460,422	1,103,024	1,265,724
All import sources	1,933,100	2,282,487	2,117,287	1,594,135	2,010,976
Apparent U.S. consumption	5,536,652	5,419,531	5,013,029	3,801,198	4,525,327
	Share of quantity (percent)				
U.S. producers' U.S. shipments	64.9	58.9	58.0	58.3	54.2
U.S. imports from.--					
China	11.0	15.1	15.3	15.2	18.8
Nonsubject sources	24.2	26.0	26.7	26.5	27.0
All import sources	35.1	41.1	42.0	41.7	45.8
	Share of value (percent)				
U.S. producers' U.S. shipments	65.1	57.9	57.8	58.1	55.6
U.S. imports from.--					
China	9.5	13.6	13.1	12.9	16.5
Nonsubject sources	25.4	28.5	29.1	29.0	28.0
All import sources	34.9	42.1	42.2	41.9	44.4

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Compiled data submitted in response to Commission questionnaires and official U.S. import statistics using 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 December 19, 2017.

Figure IV-5
CAAS: Apparent U.S. consumption, 2014-16, January to September 2016, and January to September 2017



Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

Source: Compiled data submitted in response to Commission questionnaire and official U.S. import statistics using 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 December 19, 2017.

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

The primary raw materials used to manufacture CAAS are aluminum and aluminum sheet scrap. Raw materials accounted for approximately three-fifths percent of the cost of goods sold ("COGS") for CAAS in 2016.

A majority of U.S. producers and U.S. importers reported that raw material prices had fluctuated since January 2014. As seen in figure V-1, the London Metal Exchange ("LME") price of aluminum has fluctuated since 2014, decreasing *** percent from January 2014 to November 2015 and increasing by *** percent from November 2015 to November 2017. The Midwest premium is a daily premium to the LME price applicable to U.S. wrought producers.[1] [2] Traditionally, the Midwest premium has been less than ten cents per pound, but in 2014-15 the premium increased to a historic high of over 24 cents.[3] During this period, 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 aluminum.[4] As seen in figure V-1, the LME plus Midwest premium price of aluminum has fluctuated since 2014, decreasing *** percent from January 2014 to November 2015 and increasing by *** percent from November 2015 to November 2017.

Figure V-1
Aluminum price indices: LME (High Grade) and LME plus Midwest premium price index of aluminum, January 2014-November 2017

* * * * * * *

Old aluminum sheet scrap (scrap from a recycled product such as used beverage cans or from recycled sheet) is also a raw material input in the production of CAAS. Overall, the price of old aluminum sheet scrap declined between January 2014 and September 2017. As seen in

[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. S & P Global Platts, *Methodology and Specifications Guide: Nonferrous*, April 2017.

[2] The Midwest premium price of aluminum decreased *** percent from January 2014 to October 2015 and increased by *** percent from October 2015 to November 2017. 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.

figure V-2, the price of old aluminum sheet scrap has fluctuated since 2014, decreasing *** percent from January 2014 to December 2015 and increasing by *** percent from December 2015 to November 2017.

Figure V-2
Old aluminum sheet scrap: Aluminum sheet scrap prices, January 2014-November 2017

* * * * * * *

U.S. inland transportation costs

Nine responding U.S. producers and 22 importers reported that they typically arrange transportation to their customers. Most U.S. producers reported that their U.S. inland transportation costs ranged from 2.5 to 6.0 percent.[5]

PRICING PRACTICES

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, price lists, and other methods. As presented in table V-1, it is common for U.S. producers and importers to sell on both a transaction-by-transaction basis and via contracts.

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

Method	U.S. producers	Importers
Transaction-by-transaction	9	21
Contract	8	20
Set price list	1	5
Other	---	6
Responding firms	9	31

[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 vast majority of CAAS via annual contracts while importers sold most of their product on the spot market. As shown in table V-2, U.S. producers and importers reported their 2016 U.S. commercial shipments of CAAS by type of sale.

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

* * * * * * *

[5] No responding importers provided U.S. inland transportation costs.

Most responding U.S. producers reported short-term contracts lasting between 30 to 90 days and long-term contracts with durations of 730 days (2 years). Of the 11 responding importers, 10 reported short-term contracts with durations between 90 to 180 days. Most U.S. producers and importers reported that contracts fixed price and quantity, but do not include price negotiation or meet-and-release provisions.

Purchasers provided a general description of their firms' method of purchasing alloy aluminum sheet. Most purchasers reported purchasing through contracts, with some reporting spot orders, internet purchases, and quarterly bids.

Sales terms and discounts

Most U.S. producers and importers typically quote prices on an f.o.b. basis. U.S. producers offer quantity and total volume discounts, and importers offer quantity and total volume discounts, and discounts based on credit histories. The vast majority of U.S. producers (8 of 9) and importers (21 of 27) reported sales terms of net 30 days.[6]

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 alloy aluminum sheet products shipped to unrelated U.S. customers during January 2014 through September 2017.

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.

[6] Two U.S. producers and five importers reported sales terms of net 60 days.

Five U.S. producers and 11 importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[7] Pricing data reported by these firms accounted for approximately 2.8 percent of U.S. producers' shipments of CAAS and 19.5 percent of U.S. shipments of subject imports from China in 2016.

Price data for products 1-7 are presented in tables V-3 to V-9 and figures V-3 to V-9.

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

	United States		China		
Period	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.39	5,316,980	1.36	3,211,793	2.4
Apr.-June	1.41	4,662,588	1.35	3,515,317	4.2
July-Sept	1.45	4,128,373	1.36	4,161,552	6.7
Oct.-Dec.	1.48	4,228,266	1.36	3,785,486	8.1
2015:					
Jan.-Mar.	1.45	3,951,973	1.35	3,666,560	6.7
Apr.-June	1.41	2,941,921	1.31	4,200,313	7.0
July-Sept	1.26	2,514,931	1.25	4,582,896	0.4
Oct.-Dec.	1.20	2,495,602	1.24	4,607,393	(3.4)
2016:					
Jan.-Mar.	1.21	3,519,520	1.28	4,207,350	(6.3)
Apr.-June	1.21	2,465,309	1.27	3,916,644	(4.6)
July-Sept	1.22	2,977,903	1.26	4,313,003	(2.8)
Oct.-Dec.	1.24	1,790,559	1.24	4,270,647	0.3
2017:					
Jan.-Mar.	1.31	1,923,523	1.23	5,875,910	5.9
Apr.-June	1.39	1,981,961	1.33	4,819,879	4.2
July-Sept	1.39	1,857,727	1.32	5,695,421	5.4

[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.

[7] 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-4
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 2[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.39	6,536,947	1.36	2,600,914	1.6
Apr.-June	1.40	4,414,663	1.35	3,357,418	3.7
July-Sept	1.46	4,548,941	1.35	3,685,529	7.1
Oct.-Dec.	1.50	3,681,074	1.36	3,363,782	9.3
2015:					
Jan.-Mar.	1.45	4,220,765	1.35	3,618,553	7.1
Apr.-June	1.44	3,035,887	1.32	3,620,839	8.1
July-Sept	1.28	2,304,229	1.26	4,584,557	1.6
Oct.-Dec.	1.21	2,701,030	1.23	3,671,661	(2.1)
2016:					
Jan.-Mar.	1.19	2,856,881	1.30	3,963,892	(9.1)
Apr.-June	1.22	2,277,925	1.31	3,423,896	(7.4)
July-Sept	1.24	2,273,864	1.27	4,293,250	(2.9)
Oct.-Dec.	1.27	1,740,288	1.30	3,560,751	(3.1)
2017:					
Jan.-Mar.	1.30	2,101,644	1.27	4,932,284	2.5
Apr.-June	1.40	2,121,553	1.31	4,391,780	6.4
July-Sept	1.38	1,760,186	1.36	4,267,170	1.8

[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-5
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 3[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.40	9,127,509	1.30	4,388,726	6.9
Apr.-June	1.42	7,620,801	1.29	4,819,325	9.1
July-Sept	1.45	7,033,572	1.30	5,207,308	10.5
Oct.-Dec.	1.52	6,543,925	1.31	5,469,642	13.4
2015:					
Jan.-Mar.	1.46	6,798,704	1.29	5,195,990	11.2
Apr.-June	1.42	5,325,567	1.26	6,615,769	10.9
July-Sept	1.29	4,387,136	1.20	6,556,550	7.3
Oct.-Dec.	1.24	3,599,482	1.17	6,119,695	6.0
2016:					
Jan.-Mar.	1.23	4,489,194	1.26	4,557,634	(2.7)
Apr.-June	1.22	4,147,641	1.24	5,289,896	(1.5)
July-Sept	1.24	3,856,615	1.22	6,553,977	1.8
Oct.-Dec.	1.27	3,450,461	1.23	6,239,398	3.5
2017:					
Jan.-Mar.	1.35	3,650,752	1.23	7,780,709	9.0
Apr.-June	1.41	3,695,991	1.27	7,674,385	9.7
July-Sept	1.38	2,757,537	1.33	7,732,224	4.0

[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-6
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 4[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.42	9,988,353	1.34	3,389,493	5.4
Apr.-June	1.40	6,601,565	1.34	3,311,721	4.6
July-Sept	1.49	6,046,894	1.35	3,225,261	9.4
Oct.-Dec.	1.49	6,039,298	1.36	4,346,748	9.1
2015:					
Jan.-Mar.	1.47	6,231,332	1.34	3,439,678	8.8
Apr.-June	1.44	4,264,547	1.30	3,949,061	9.5
July-Sept	1.31	4,391,291	1.24	4,676,376	5.0
Oct.-Dec.	1.24	3,771,816	1.23	4,020,087	1.1
2016:					
Jan.-Mar.	1.22	4,308,058	1.30	3,714,201	(6.0)
Apr.-June	1.24	4,099,321	1.26	4,992,498	(1.7)
July-Sept	1.24	4,122,906	1.25	4,861,297	(1.0)
Oct.-Dec.	1.23	3,916,699	1.29	4,015,435	(4.2)
2017:					
Jan.-Mar.	1.33	3,686,329	1.26	5,611,678	4.7
Apr.-June	1.39	3,757,973	1.29	5,487,603	7.0
July-Sept	1.38	3,303,535	1.34	5,312,331	3.3

[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-7
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 5[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.38	1,160,324	1.37	2,010,487	1.0
Apr.-June	1.37	878,606	1.36	2,192,450	0.9
July-Sept	1.46	729,728	1.37	2,298,939	6.6
Oct.-Dec.	1.52	671,716	1.39	2,407,926	9.0
2015:					
Jan.-Mar.	1.49	872,266	1.35	2,467,000	9.3
Apr.-June	1.39	726,374	1.33	2,615,003	4.1
July-Sept	1.17	590,013	1.28	2,791,569	(10.0)
Oct.-Dec.	1.17	679,145	1.28	2,561,296	(9.6)
2016:					
Jan.-Mar.	1.15	796,248	1.34	2,292,073	(17.1)
Apr.-June	1.11	508,388	1.31	2,737,289	(18.0)
July-Sept	***	***	1.33	2,518,456	***
Oct.-Dec.	***	***	1.33	2,417,331	***
2017:					
Jan.-Mar.	1.28	427,865	1.31	2,440,307	(1.9)
Apr.-June	1.36	493,262	1.33	2,478,976	2.4
July-Sept	***	***	1.35	2,249,824	***

[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-8
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 6[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.34	2,228,071	1.30	2,875,927	3.2
Apr.-June	1.35	1,698,398	1.30	3,214,443	3.9
July-Sept	1.44	1,429,608	1.30	3,474,408	9.3
Oct.-Dec.	1.48	987,137	1.30	3,734,094	12.1
2015:					
Jan.-Mar.	1.44	862,183	1.28	4,056,340	10.7
Apr.-June	1.35	931,892	1.26	4,091,370	6.9
July-Sept	1.21	1,062,417	1.20	4,605,810	0.5
Oct.-Dec.	1.15	941,654	1.18	4,337,793	(2.6)
2016:					
Jan.-Mar.	***	***	1.23	4,282,148	***
Apr.-June	***	***	1.23	4,368,540	***
July-Sept	1.16	1,113,027	1.22	4,338,465	(5.5)
Oct.-Dec.	***	***	1.24	4,151,862	***
2017:					
Jan.-Mar.	***	***	1.23	4,000,514	***
Apr.-June	1.33	1,091,701	1.30	3,611,391	2.8
July-Sept	***	***	1.30	3,996,819	***

[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.

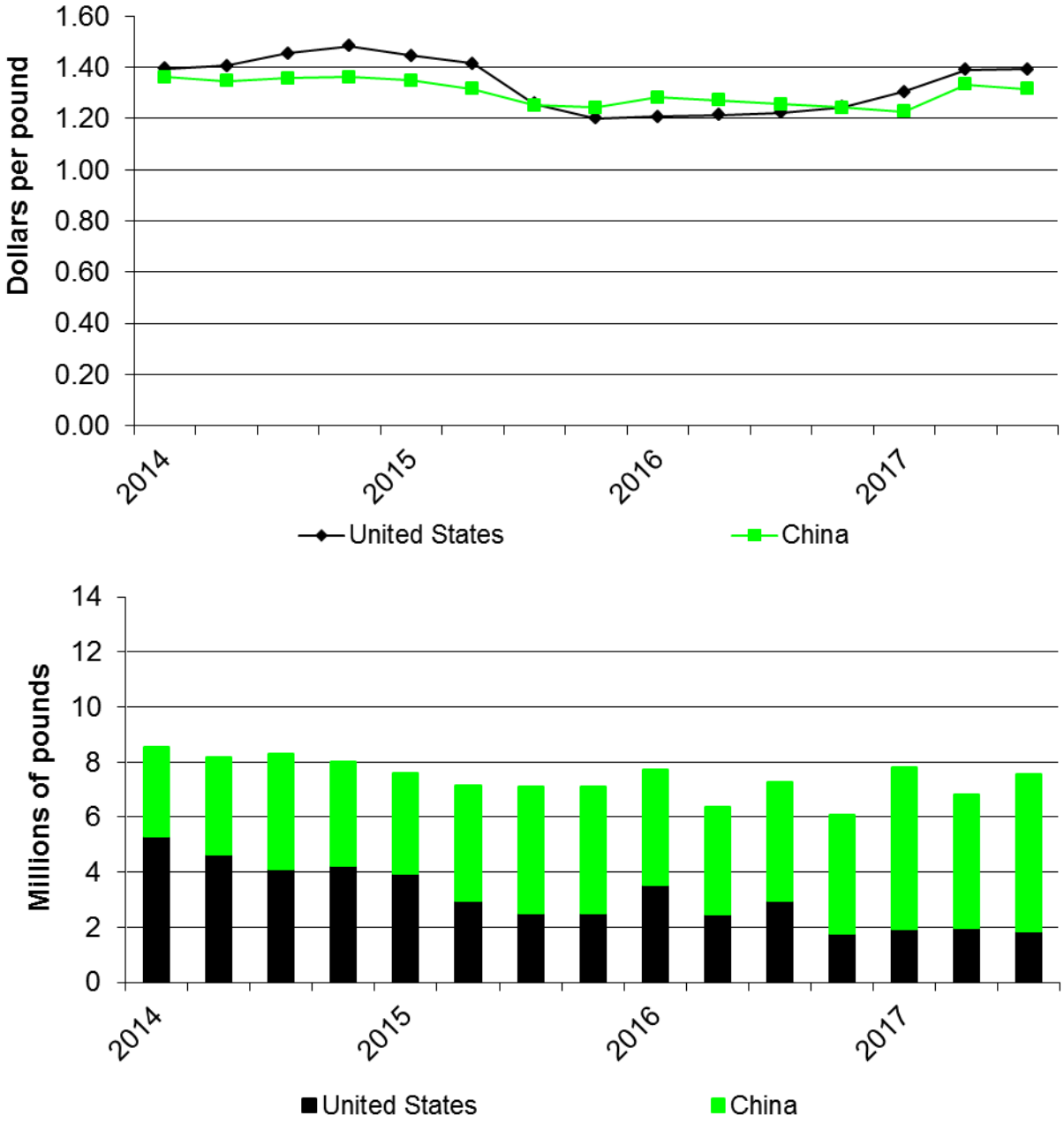
Table V-9
CAAS: Weighted-average f.o.b. prices and quantities of domestic and imported product 7[1] and margins of underselling/(overselling), by quarters, January 2014 through September 2017

Period	United States		China		
	Price (dollars per pound)	Quantity (pounds)	Price (dollars per pound)	Quantity (pounds)	Margin (percent)
2014:					
Jan.-Mar.	1.36	1,588,997	1.35	2,389,859	0.8
Apr.-June	***	***	1.35	2,488,178	***
July-Sept	1.46	1,184,527	1.36	3,059,885	7.0
Oct.-Dec.	***	***	1.35	3,592,773	***
2015:					
Jan.-Mar.	1.48	752,934	1.32	3,819,950	10.4
Apr.-June	***	***	1.31	3,556,982	***
July-Sept	1.20	811,205	1.27	3,498,958	(5.3)
Oct.-Dec.	***	***	1.25	3,353,987	***
2016:					
Jan.-Mar.	***	***	1.25	3,493,697	***
Apr.-June	***	***	1.26	3,245,515	***
July-Sept	***	***	1.25	3,640,536	***
Oct.-Dec.	***	***	1.29	2,986,223	***
2017:					
Jan.-Mar.	***	***	1.25	3,628,132	***
Apr.-June	1.36	730,498	1.31	3,456,331	3.8
July-Sept	***	***	1.31	3,519,710	***

[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.

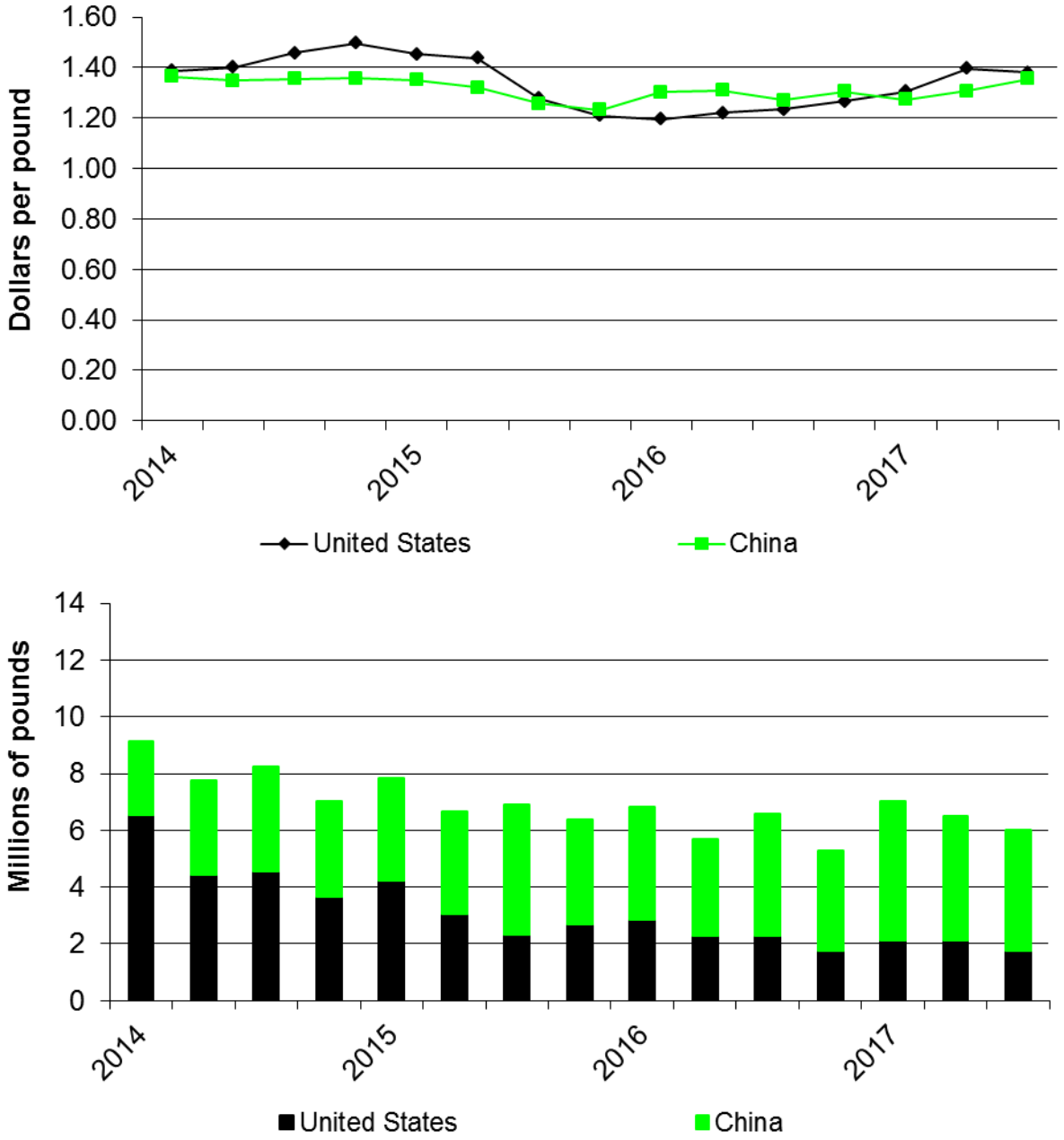
Figure V-3
CAAS: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014 through September 2017



Product 1: Alloy 5052, H-32 temper, 0.063 inch thickness, 48 inches wide.

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

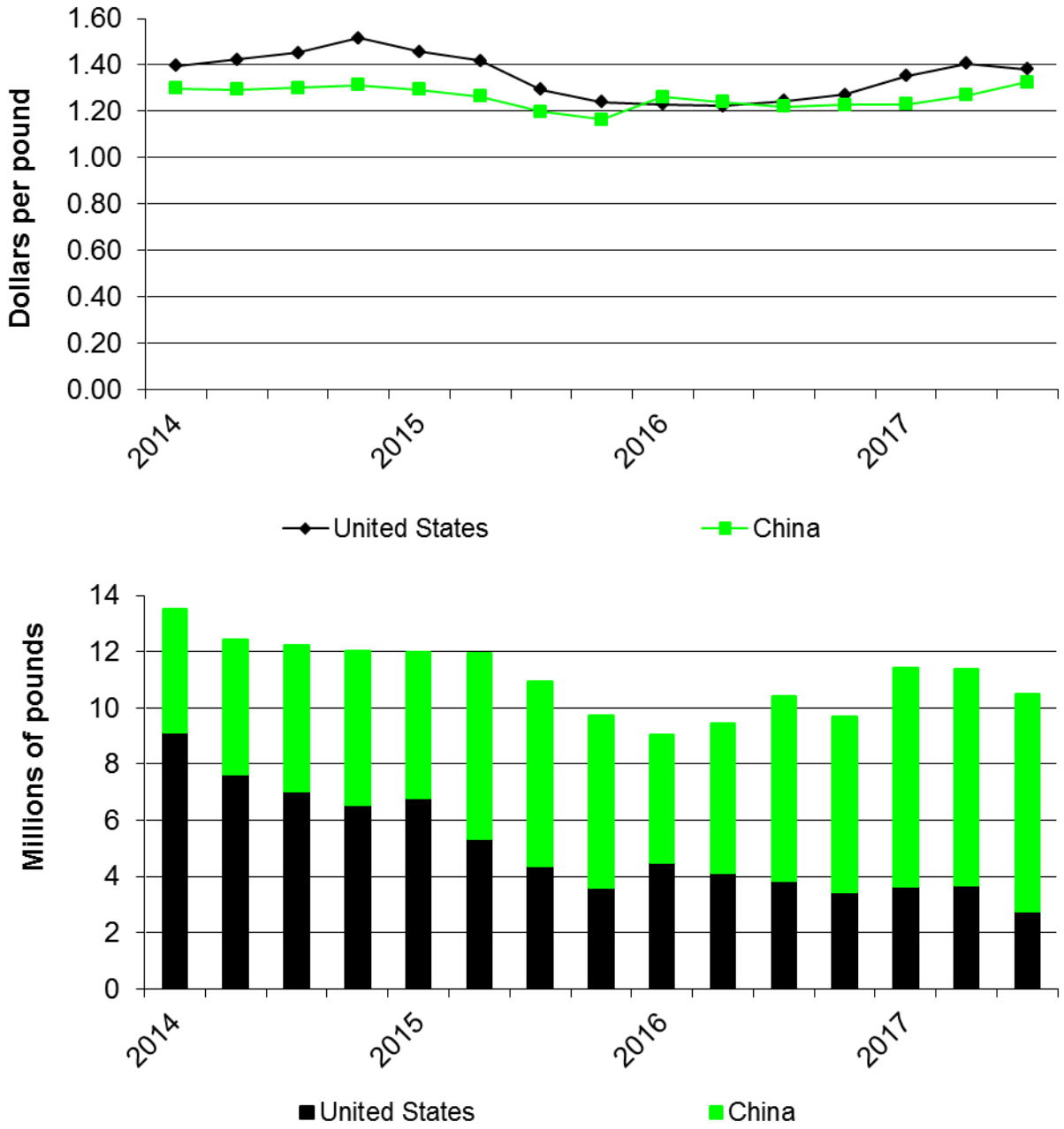
Figure V-4
CAAS: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014 through September 2017



Product 2: Alloy 5052, H-32 temper, 0.080 inch thickness, 48 inches wide.

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

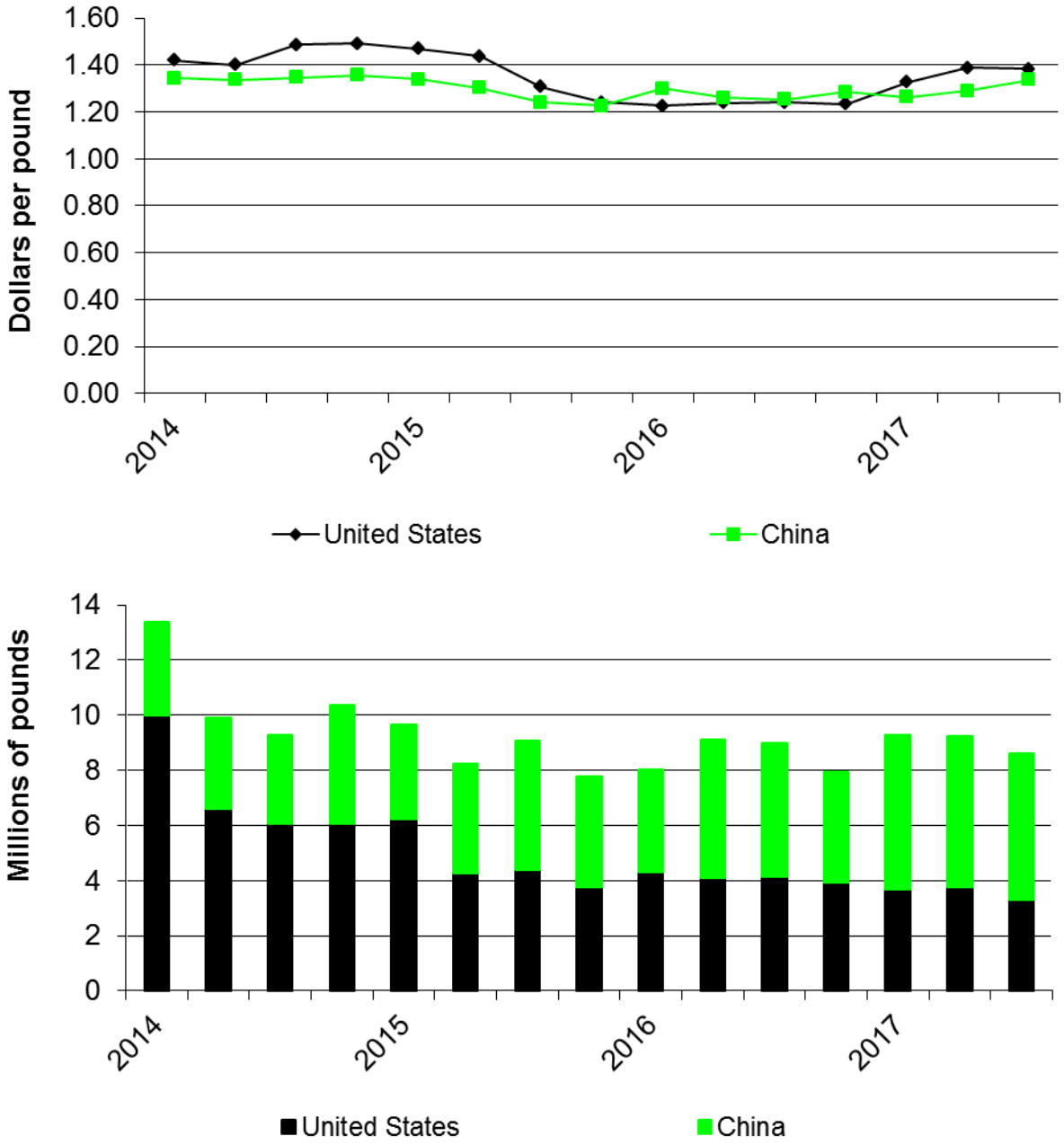
Figure V-5
CAAS: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2014 through September 2017



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 quarters, January 2014 through September 2017



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 quarters, January 2014 through September 2017

* * * * * * *

Figure V-8
CAAS: Weighted-average prices and quantities of domestic and imported product 6, by quarters, January 2014 through September 2017

* * * * * * *

Figure V-9
CAAS: Weighted-average prices and quantities of domestic and imported product 7, by quarters, January 2014 through September 2017

* * * * * * *

Price trends

Overall, prices fluctuated, but in general decreased modestly between January 2014 and September 2017. Table V-10 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from *** percent to *** percent during January 2014 through September 2017, while import price decreases ranged from *** percent to *** percent. Import price increases ranged from *** percent to *** percent.

Table V-10
CAAS: Summary of weighted-average f.o.b. prices for products 1-7 from the United States and China

Item	Number of quarters	Low price (per unit)	High price (per unit)	Change in price[1] (percent)
Product 1				
United States	15	1.20	1.48	(0.2)
China	15	1.23	1.36	(2.3)
Product 2				
United States	15	1.19	1.50	(0.4)
China	15	1.23	1.36	(0.5)
Product 3				
United States	15	1.22	1.52	(1.0)
China	15	1.17	1.33	2.1
Product 4				
United States	15	1.22	1.49	(2.5)
China	15	1.23	1.36	(0.4)
Product 5				
United States	15	***	***	***
China	15	***	***	***
Product 6				
United States	15	***	***	***
China	15	***	***	***
Product 7				
United States	15	***	***	***
China	15	***	***	***

[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 table V-11 and V-12, prices for product imported from China were below those for U.S.-produced product in 71 of 105 instances (296,976,032 pounds); margins of underselling ranged from 0.3 to 13.4 percent. In the remaining 34 instances (125,094,670 pounds), prices for product from China were between 0.5 to 18.0 percent above prices for the domestic product.

Table V-11
CAAS: Instances of underselling/overselling and the range and average of margins, by country, January 2014 through September 2017

Source	Underselling				
	Number of quarters	Quantity[1] (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
China	71	296,976,032	5.7	0.3	13.4
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
China	34	125,094,670	(6.2)	(0.5)	(18.0)

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

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

Table V-12
CAAS: Instances of underselling/overselling and the range and average of margins, by pricing product, January 2014 through September 2017

Source	Underselling				
	Number of quarters	Quantity[1] (pounds)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Product 6	***	***	***	***	***
Product 7	***	***	***	***	***
Total, underselling	71	296,976,032	5.7	0.3	13.4
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (pounds)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Product 5	***	***	***	***	***
Product 6	***	***	***	***	***
Product 7	***	***	***	***	***
Total, overselling	34	125,094,670	(6.2)	(0.5)	(18.0)

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

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

LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of CAAS report purchasers where they experienced instances of lost sales or revenue due to competition from imports of CAAS from China during January 2014 through September 2017. Of the nine responding U.S. producers, six reported that they had to either reduce prices or roll back announced price increases, and six firms reported that they had lost sales. Six U.S. producers submitted allegations covering 27 firms where they lost sales and/or revenue (26 consisting lost sales allegations, 13 consisting of lost revenue allegations, and 7 consisting of both types of allegations).[8] Responding firms stated they had lost sales 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.

Staff contacted 27 purchasers and received responses from 16 purchasers. Responding purchasers reported purchasing 634,301 pounds of CAAS during January 2014 through September 2017 (table V-13).

Table V-13
CAAS: Purchasers' responses regarding purchasing patterns

* * * * * * *

During 2016, responding purchasers purchased 64.0 percent from U.S. producers, 15.6 percent from China, 9.0 percent from nonsubject countries, and 11.5 percent from "unknown source" countries on a quantity basis. Of the responding purchasers, 6 reported decreasing purchases from domestic producers, 3 reported increasing purchases, 2 reported no change, and 5 reported fluctuating purchases.[9] Explanations for increasing purchases of domestic product included increased business volumes, domestic products having consistent quality, and shorter delivery cycles. Explanations for decreasing purchases of domestic product included lower foreign prices and reduced availability due to decreasing domestic interest in supplying CAAS.

Of the 16 responding purchasers, 13 reported that, since 2014, they had purchased imported CAAS from China instead of U.S.-produced product. All of these purchasers reported that subject import prices were lower than U.S.-produced product, and 10 of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product (table V-14). Nine purchasers estimated the quantity of CAAS from China purchased instead of domestic product; quantities ranged from *** to ***. Purchasers identified diversifying supply and limited capabilities of domestic mills as non-price reasons for purchasing imported rather than U.S.-produced product.

[8] Multiple allegations were submitted by the same U.S. producer for the same purchaser.

[9] Of the 16 responding purchasers, eight purchasers indicated that they did not know the source of the CAAS they purchased.

Table V-14
CAAS: Purchasers' responses regarding purchasing subject imports instead of domestic product

* * * * * * *

Of the 16 responding purchasers, six reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China, whereas four reported that they did not know (table V-15). The reported estimated price reductions ranged from *** percent to *** percent. In describing the price reductions, purchasers indicated reductions in fabrication prices and lowering prices to attract higher amounts of volumes.

Table V-15
CAAS: Purchasers' responses regarding U.S. producer price reductions

* * * * * * *

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Nine U.S. producers (***) provided financial data on their operations on CAAS.[1] Seven U.S. producers reported financial data on a calendar year basis and eight U.S. producers reported their financial results based on generally accepted accounting principles ("GAAP").[2] *** accounted for the majority of total net sales value in 2016 (*** percent), followed by *** (*** percent). The remaining U.S. producers ranged from *** percent (***) to *** percent (***) of total sales value. Net sales consisted primarily of commercial sales; however, *** reported internal consumption which accounted for *** percent of total net sales value in 2016. Internal consumption is included but not shown separately in this section of the report.[3]

OPERATIONS ON COMMON ALLOY ALUMINUM SHEET

Table VI-1 presents aggregated data on U.S. producers' operations in relation to CAAS. Table VI-2 shows the changes in average unit values of select financial indicators. Table VI-3 presents selected company-specific financial data.

The reported aggregate net sales quantity declined by 6.5 percent between 2014 and 2016 and the aggregate net sales value decreased by 19.6 percent. Operating costs and expenses (the aggregate cost of goods sold ("COGS") and selling, general, and administrative ("SG&A") expenses, combined) decreased by 20.5 percent during the same period. Gross profit and operating income increased between 2014 and 2016 as a result of larger decreases in operating costs and expenses compared to revenue.

Interest expense, other expense, and other income were allocated to the product line from corporate expenses. In the aggregate these items irregularly decreased by 14.0 percent from 2014 to 2016.[4] As a result, net loss reported by the industry declined from 2014 to 2016.

Net sales quantity was 0.7 percent higher in January-September 2017 than in January-September 2016 and net sales value was higher by 13.5 percent during the same period. Operating costs and expenses were 15.5 percent higher in January-September 2017 than in January-September 2016. Gross profit and operating income were lower as a result of the larger increase in operating costs and expenses compared to revenue.

Interest expense, other expense, and other income in total were 42.8 percent higher in January-September 2017 than January-September 2016. As a result, the industry reported net loss in January-September 2017 compared to net income in January-September 2016.[5]

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[1] *** and did not provide adequate financial data for these investigations. ***'s data are included in this section of the report.

[2] The producers with fiscal year ends other than December 31 are ***.

[3] ***. Email from ***, December 21, 2017.

[4] ***. Email from ***, January 3, 2018.

Table VI-1
CAAS: Results of operations of U.S. producers, 2014-16, January to September 2016, and January to September 2017

Item	Fiscal year			January to September	
	2014	2015	2016	2016	2017
	Quantity (short tons)				
Total net sales	1,308,729	1,235,056	1,223,129	935,160	942,034
	Value (1,000 dollars)				
Total net sales	3,832,576	3,406,824	3,081,306	2,353,215	2,671,774
Cost of goods sold.-- Raw materials	2,461,640	2,115,065	1,774,024	1,355,365	1,610,123
Direct labor	342,327	338,211	339,750	256,237	265,835
Other factory costs	809,299	727,033	726,360	547,233	619,294
Total COGS	3,613,266	3,180,309	2,840,134	2,158,835	2,495,252
Gross profit	219,310	226,515	241,172	194,380	176,522
SG&A expense	130,144	158,286	136,894	98,655	111,990
Operating income or (loss)	89,166	68,229	104,278	95,725	64,532
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
Depreciation/amortization	***	***	***	***	***
Cash flow	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold.-- Raw materials	64.2	62.1	57.6	57.6	60.3
Direct labor	8.9	9.9	11.0	10.9	9.9
Other factory costs	21.1	21.3	23.6	23.3	23.2
Average COGS	94.3	93.4	92.2	91.7	93.4
Gross profit	5.7	6.6	7.8	8.3	6.6
SG&A expense	3.4	4.6	4.4	4.2	4.2
Operating income or (loss)	2.3	2.0	3.4	4.1	2.4
Net income or (loss)	***	***	***	***	***

Table continued on the next page.

(…*continued*)

[5] Net income was positive and higher in January-September 2016 compared to *** due to ***. Email from ***, December 28, 2017.

Table VI-1–Continued
CAAS: Results of operations of U.S. producers, 2014-16, January to September 2016, and January to September 2017

Item	Fiscal year			January to September	
	2014	2015	2016	2016	2017
	Ratio to total COGS (percent)				
Cost of goods sold.-- Raw materials	68.1	66.5	62.5	62.8	64.5
Direct labor	9.5	10.6	12.0	11.9	10.7
Other factory costs	22.4	22.9	25.6	25.3	24.8
Average COGS	100.0	100.0	100.0	100.0	100.0
	Unit value (dollars per short ton)				
Total net sales	2,928	2,758	2,519	2,516	2,836
Cost of goods sold.-- Raw materials	1,881	1,713	1,450	1,449	1,709
Direct labor	262	274	278	274	282
Other factory costs	618	589	594	585	657
Average COGS	2,761	2,575	2,322	2,309	2,649
Gross profit	168	183	197	208	187
SG&A expense	99	128	112	105	119
Operating income or (loss)	68	55	85	102	69
Net income or (loss)	***	***	***	***	***
	Number of firms reporting				
Operating losses	3	2	1	1	2
Net losses	5	3	3	3	3
Data	9	9	9	9	9

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

Table VI-2
CAAS: Changes in AUVs, between fiscal years and between partial year periods

Item	Between fiscal years			Between partial year periods
	2014-16	2014-15	2015-16	2016-17
	Change in AUVs (dollars per short ton)			
Total net sales	(409)	(170)	(239)	320
Cost of goods sold.-- Raw materials	(431)	(168)	(262)	260
Direct labor	16	12	4	8
Other factory costs	(25)	(30)	5	72
Average COGS	(439)	(186)	(253)	340
Gross profit	30	16	14	(20)
SG&A expense	12	29	(16)	13
Operating income or (loss)	17	(13)	30	(34)
Net income or (loss)	***	***	***	***

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

Table VI-3
CAAS: Select results of operations of U.S. producers, by company, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

Per-short ton revenue decreased from 2014 to 2016, but was higher in January-September 2017 than in January-September 2016. On a per-short ton basis, raw material costs decreased from 2014 to 2016, but were higher in January-September 2017 than in January-September 2016. Direct labor costs increased from 2014 to 2016 but were higher between the comparable interim periods. Other factory costs decreased from 2014 to 2016, but were higher between the comparable interim periods.[6] In combination, per-short ton COGS decreased from 2014 to 2016, and was higher in January-September 2017 than in January-September 2016. Per-short ton SG&A expenses increased from 2014 to 2016 and were higher between the comparable interim periods.

The aforementioned trends in per-short ton revenue and costs are reflected in increases in gross profit and operating income, and lower gross profit and operating income in January-September 2017 than in January-September 2016. The per-short ton net loss improved from 2014 to 2016. The per-short ton net income was positive in January-September 2016 compared to a net loss in January-September 2017.

As a ratio to net sales, raw material costs decreased whereas direct labor and other factory costs increased from 2014 to 2016. Raw material costs were higher whereas direct labor and other factory costs were lower in January-September 2017 than in January-September 2016. COGS as a ratio to net sales decreased from 2014 to 2016 and were higher in January-September 2017 than in January-September 2016. SG&A expenses as a ratio to net sales irregularly increased from 2014 to 2016, and were unchanged between the comparable interim periods. Both the industry's COGS and SG&A expenses as a ratio to net sales moved within a relatively narrow band during the period examined.

The aforementioned trends in COGS and SG&A expenses as ratios to net sales resulted in increases in gross profit and operating income-to-sales from 2014 to 2016, as well as lower gross profit and operating income-to-sales in January-September 2017 compared to January-September 2016. The net loss as a ratio to net sales improved irregularly from 2014 to 2016. The net income-to-sales ratio was positive in January-September 2016, and was negative in January-September 2017.

Raw material costs accounted for an average of 65.6 percent of total COGS from 2014 to September 2017. Raw materials consist of primary aluminum, aluminum scrap, and various other raw materials such as ***.[7] Primary aluminum varied from *** percent to *** percent,

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[6] ***. Email from ***, January 2, 2018. ***. Email from ***, January 3, 2018.

[7] ***. See U.S. producers' questionnaire responses, question III-9c. Lee McCarter, chief executive officer ("CEO") of JW Aluminum testified that "We hedge every purchase of scrap that we buy and depending upon the length of the hold time of the material, we can also hedge that material if it's going to be held for a long time, to ensure we minimize volatility in profitability." Conference transcript, p. 79 (McCarter).

aluminum scrap varied from *** percent to *** percent, and other raw materials varied from *** percent to *** percent of the total raw material costs.[8] ***.[9] [10] Other factory costs accounted for an average of 23.8 percent of total COGS from 2014 to September 2017. Direct electricity costs, which all U.S. producers classify as part of *** varied, but generally ranged from *** percent of total COGS. [11] ***.[12]

*** reported operating losses as a ratio to net sales throughout the period, in contrast with the average operating income for the industry. According to ***.[13]

While the U.S. industry reported an increase in profitability from 2014 to 2016, *** reported a notable change from loss to profit from 2014 to 2015 and *** were consistently more profitable throughout the period for which data were collected compared to the industry average. According to ***.[14] According to ***.[15] ***.[16]

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[8] See these firms' U.S. producers' questionnaire responses, question III-9b. Three firms accounted for most of the use of primary aluminum in their production (***). Five firms reported that they used between *** percent to *** percent primary aluminum while one firm (***) reported that it used *** percent. Aluminum scrap accounted for most of the balance of input raw materials. Lloyd Stemple, CEO of Constellium testified that "The alloys are very dependent. You can recycle an alloy into itself, but 1000 series is a higher level of purity than the others. 3000 series contains primarily manganese and 5000 {series} contains magnesium. So depending on the quality of the scrap that you have, you then have to blend primary aluminum to hit the specifications of each alloy element. So it really varies depending on your scrap source and where you get your metal units from." Conference transcript, pp. 77-78 (Stemple).

[9] In accordance with Commission practice, *** producers reported cost information associated with the input purchases from related suppliers in the manner in which this information is reported in the U.S. producers' own accounting books and records. For ***. See these firms' U.S. producers' questionnaire responses, question III-7.

[10] ***. U.S. producers' questionnaire response of ***, question III-8.

[11] ***. Lee McCarter, CEO of JW Aluminum testified that the Commission should consider hedging gains and losses in its examination of profitability because it is involved in determining net income. Conference transcript, p. 80 (McCarter). ***. Email from ***, January 3, 2018. John Zanelli, senior manager at Novelis testified that "a lot of times the ingot that's used that's bought on the LME, it's a pass-through to the customer, so they know exactly what that LME price is. If they opt to hedge it for a year, that gain goes to the customer." Conference transcript, p. 80 (Zanelli).

[12] ***. U.S. producers' questionnaire responses of ***, question III-10. These firms ***. Emails from ***, January 3, 2018.

[13] Email from ***, December 28, 2017.

[14] Email from ***, December 28, 2017.

[15] Email from ***, December 28, 2017.

[16] Email from ***, January 3, 2018.

Variance analysis

The variance analysis presented in table VI-4 is based on the data in table VI-1.[17] The analysis illustrates that from 2014 to 2016, the increase in the industry's operating income is primarily attributable to a favorable net cost/expense variance that was greater than an unfavorable price variance (that is, costs and expenses declined more than prices). Between the comparable interim periods, the lower operating income in January-September 2017 compared to January-September 2016 is primarily attributable to a higher unfavorable net cost/expense variance despite a favorable price variance (that is, costs and expenses increased more than prices).

[17] The Commission's variance analysis is calculated in three parts: sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost variance is calculated as the change in unit price or unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or unit cost. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances.

Table VI-4
CAAS: Variance analysis for U.S. producers, between fiscal years and between partial year periods

Item	Between fiscal years			January-September
	2014-16	2014-15	2015-16	2016-17
	Value (1,000 dollars)			
Net sales:				
Price variance	(500,593)	(210,003)	(292,618)	301,261
Volume variance	(250,677)	(215,749)	(32,900)	17,298
Net sales variance	(751,270)	(425,752)	(325,518)	318,559
COGS:				
Cost variance	536,799	229,553	309,463	(320,548)
Volume variance	236,333	203,404	30,712	(15,869)
COGS variance	773,132	432,957	340,175	(336,417)
Gross profit variance	21,862	7,205	14,657	(17,858)
SG&A expenses:				
Cost/expense variance	(15,262)	(35,468)	19,863	(12,610)
Volume variance	8,512	7,326	1,529	(725)
Total SG&A expense variance	(6,750)	(28,142)	21,392	(13,335)
Operating income variance	15,112	(20,937)	36,049	(31,193)
Summarized (at the operating income level) as:				
Price variance	(500,593)	(210,003)	(292,618)	301,261
Net cost/expense variance	521,537	194,085	329,326	(333,158)
Net volume variance	(5,832)	(5,019)	(659)	704

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

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-5 presents capital expenditures and research and development ("R&D") expenses by firm. Eight of nine responding U.S. producers reported capital expenditure data, and four U.S. producers reported research and development ("R&D") expenses.

Table VI-5
CAAS: Capital expenditures and research and development expenses for U.S. producers, by firm, 2014-16, January to September 2016, and January to September 2017

Item	Fiscal year			January to September	
	2014	2015	2016	2016	2017
	Capital expenditures (1,000 dollars)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Skana	***	***	***	***	***
Total capital expenditures	84,199	124,124	148,307	100,187	115,757
	Research and development expenses (1,000 dollars)				
Alcoa Warrick	***	***	***	***	***
Aleris	***	***	***	***	***
Arconic	***	***	***	***	***
Constellium	***	***	***	***	***
Granges	***	***	***	***	***
Jupiter	***	***	***	***	***
JW Aluminum	***	***	***	***	***
Novelis	***	***	***	***	***
Skana	***	***	***	***	***
Total research and development expenses	***	***	***	***	***

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

Capital expenditures increased from $84.2 million in 2014 to $148.3 million in 2016, and were higher in January-September 2017 than in January-September 2016. As can be seen in table VI-5, all U.S. producers reported increasing capital expenditures from 2014 to 2016 and five U.S. producers reported higher capital expenditures in January-September 2017 compared to January-September 2016. All of the U.S. producers described their capital expenditures as ***.[18]

Total R&D expenses moved within a relatively narrow range throughout the period for which data were collected. R&D expenses reported by ***.[19] R&D expenses reported by ***.[20]

[18] See U.S. producers' questionnaire responses, question III-13.
[19] U.S. producers' questionnaire response of ***, question III-13.
[20] U.S. producers' questionnaire response of ***, question III-13.

ASSETS AND RETURN ON ASSETS

Table VI-6 presents data on the U.S. producers' total assets and their operating return on assets ("ROA").[21] Total assets and the ROA for the industry irregularly increased but moved within a relatively narrow range throughout the period for which data were collected. However, *** of the nine responding producers reported decreasing assets from 2014 to 2016.[22]

Table VI-6
CAAS: Value of assets used in production, warehousing, and sales, and return on assets for U.S. producers by firm, 2014-16

Firm	Fiscal years		
	2014	2015	2016
	Total net assets (1,000 dollars)		
Alcoa Warrick	***	***	***
Aleris	***	***	***
Arconic	***	***	***
Constellium	***	***	***
Granges	***	***	***
Jupiter	***	***	***
JW Aluminum	***	***	***
Novelis	***	***	***
Skana	***	***	***
Total net assets	2,252,684	2,285,264	2,270,720
	Operating return on assets (percent)		
Alcoa Warrick	***	***	***
Aleris	***	***	***
Arconic	***	***	***
Constellium	***	***	***
Granges	***	***	***
Jupiter	***	***	***
JW Aluminum	***	***	***
Novelis	***	***	***
Skana	***	***	***
Average operating return on assets	4.0	3.0	4.6

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

[21] The return on assets is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations were generally required in order to report a total asset value for CAAS.

[22] ***.

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of CAAS to describe any negative effects of imports of CAAS from China on their firms' return on investment or the scale of capital investments, as well as any negative effects on their firms' growth, ability to raise capital, or existing development and production efforts. Table VI-7 presents U.S. producers' responses in a tabulated format and table VI-8 provides the narrative responses.

Table VI-7
CAAS: Actual and anticipated negative effects of imports from China on investment and growth and development

Item	No	Yes
Negative effects on investment	3	6
Cancellation, postponement, or rejection of expansion projects		***
Denial or rejection of investment proposal		***
Reduction in the size of capital investments		***
Return on specific investments negatively impacted		***
Other		***
Negative effects on growth and development	2	7
Rejection of bank loans		***
Lowering of credit rating		***
Problem related to the issue of stocks or bonds		***
Ability to service debt		***
Other		***
Anticipated negative effects of imports	1	8

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

Table VI-8
CAAS: Narratives relating to actual and anticipated negative effects of imports from China on investment and growth and development, since January 1, 2014

* * * * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors[1]*--*

(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,

(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,

(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,

(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,

(V) inventories of the subject merchandise,

---

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

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

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

THE INDUSTRY IN CHINA

The Commission issued foreign producers' or exporters' questionnaires to 174 firms believed to produce and/or export CAAS from China.[3] Usable responses to the Commission's questionnaire were received from five firms,[4] four of which are producers and exporters: Henan Founder Beyond Industry Co. ("Henan Founder"), Henan Mingtai Al. Industrial Co., Ltd ("Mingtai Aluminum"), Luoyang Wanji Aluminium Processing Co., Ltd. ("Wanji Group"), and Henan Xindatong Aluminum Industry Co., Ltd. ("Xindatong"); and one is a reseller: Zhengzhou Silverstone Limited ("Silverstone").[5] These firms' exports to the United States accounted for approximately *** percent of U.S. imports of CAAS from China in 2016.[6] Table VII-1 presents information on the CAAS operations of the responding producers and exporters in China and table VII-2 presents information on the CAAS operations of the responding resellers in China.

Table VII-1
CAAS: Summary data on producers and exporters in China, 2016

Firm	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)
Henan Founder	***	***	***	***	***	***
Mingtai Aluminum	***	***	***	***	***	***
Wanji Group	***	***	***	***	***	***
Xindatong	***	***	***	***	***	***
Total	***	***	***	***	***	***

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

Table VII-2
CAAS: Summary data on resellers in China, 2016

Firm	Resales exported to the United States (short ton)	Share of reported resales exported to the United States (percent)
Silverstone	***	***
Total	***	***

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

[3] These firms were identified through a review of information contained in the documents received from Commerce, and contained in *** records.

[4] ***.

[5] CAAS resold by Silverstone was produced by ***. The Commission was unable to obtain production data from this firm. Export data reported by Silverstone is therefore not included or double-counted in the production data otherwise reported by responding producers and exporters in China.

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

Changes in operations

The Commission requested producers of CAAS in the subject country to indicate whether their firm had experienced any changes in relation to the production of CAAS since January 1, 2014. One firm reported plant openings, two firms reported expansions, and one firm reported other changes. During the staff conference, parties in support of the duties presented data alleging "Chinese producers continue to add {CAAS} capacity." ***. Table VII-3 presents data on reported changes in operations by producers in China since January 1, 2014.

Table VII-3
CAAS: Reported changes in operations by producers in China, since January 1, 2014

* * * * * * *

Operations on CAAS

In 2016, producers and exporters in China reported 867,052 short tons of CAAS production, an increase of 23.3 percent since 2014. Production of CAAS is projected to increase to 982,764 short tons in 2017 and 1,151,728 short tons in 2018. Capacity utilization was 92.9 percent in 2016, up from 83.2 percent in 2014, and is projected to be 94.5 percent in 2017 and 93.8 percent in 2018. Total shipments of CAAS exported to the United States, including producers, exporters, and resellers, declined *** percent from 2014 to 2015 but increased by *** percent in 2016, and was *** percent higher in January-September 2017 compared with January-September 2016. Exports to the United States are projected to increase to *** percent in 2017 and then declining *** percent in 2018, largely due to ***.

*** projected exports of CAAS to the United States would *** from *** short tons in 2017 to *** short tons in 2018. The firm noted, ***. Table VII-4 presents information on the CAAS operations of the responding producers, exporters, and resellers in China.

Table VII-4
CAAS: Data on industry in China, 2014-16, January to September 2016, and January to September 2017 and projection calendar years 2017 and 2018

Item	Actual experience					Projections	
	Calendar year			January to September		Calendar year	
	2014	2015	2016	2016	2017	2017	2018
	Quantity (short tons)						
Capacity	845,347	888,829	933,393	686,862	781,173	1,040,089	1,227,950
Production	703,166	781,592	867,052	637,409	758,421	982,764	1,151,728
End-of-period inventories	30,746	35,051	34,601	36,367	41,540	38,866	39,741
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	704,359	781,287	872,502	641,093	754,482	983,499	1,163,677
	Ratios and shares (percent)						
Capacity utilization	83.2	87.9	92.9	92.8	97.1	94.5	93.8
Inventories/production	4.4	4.5	4.0	4.3	4.1	4.0	3.5
Inventories/total shipments	4.4	4.5	4.0	4.3	4.1	4.0	3.4
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

Table continued on next page.

Table VII-4--Continued
CAAS: Data on industry in China, 2014-16, January to September 2016, and January to September 2017 and projection calendar years 2017 and 2018

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

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

Alternative products

As shown in table VII-5, responding Chinese firms produced other products on the same equipment and machinery used to produce CAAS. Products include out-of-scope aluminum can stock, aluminum foil, aluminum plate, and other products.

Table VII-5
CAAS: Overall capacity and production on the same equipment as in-scope production by producers in China, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

Exports

Data on China's exports of aluminum plates, sheets and strip (of a thickness exceeding 0.2 mm) are presented in table VII-6. According to Global Trade Atlas ("GTA"), the United States, Korea, and Thailand were the largest export destinations for aluminum plates, sheets and strip from China in terms of quantity, accounting for 22.1 percent, 6.7 percent, and 5.4 percent of China's exports in 2016, respectively. During 2014-16, China's exports of aluminum plates, sheets and strip to the United States increased 35.2 percent. China's total exports increased 7.6 percent from 2014 to 2015, and then declined 12.4 percent from 2015 to 2016.

Table VII-6
Aluminum plates, sheets and strip: China exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (short tons)		
Exports from China to the United States	295,459	350,243	399,323
Exports from China to other major destination markets.--			
Korea	200,607	221,850	121,363
Thailand	75,475	100,283	97,638
Nigeria	145,928	136,726	93,098
Indonesia	117,641	92,015	80,018
Malaysia	84,137	94,014	66,670
India	78,829	94,963	66,257
Mexico	26,063	36,294	64,108
Vietnam	223,656	124,706	60,906
All other destination markets	668,431	811,371	756,778
Total Exports from China	1,916,226	2,062,465	1,806,159
	Value (1,000 dollars)		
Exports from China to the United States	705,996	813,564	815,656
Exports from China to other major destination markets.--			
Korea	492,170	476,415	264,136
Thailand	182,592	232,230	211,661
Nigeria	332,979	288,042	180,553
Indonesia	262,918	196,284	155,653
Malaysia	211,999	215,351	144,301
India	197,847	217,000	146,489
Mexico	69,302	92,670	145,078
Vietnam	764,538	347,723	135,473
All other destination markets	1,625,003	1,887,594	1,581,299
Total Exports from China	4,845,342	4,766,873	3,780,299

Table continued.

Table VII-6—Continued
Aluminum plates, sheets and strip: China exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Unit value (dollars per short ton)		
Exports from China to the United States	2,389	2,323	2,043
Exports from China to other major destination markets.--			
Korea	2,453	2,147	2,176
Thailand	2,419	2,316	2,168
Nigeria	2,282	2,107	1,939
Indonesia	2,235	2,133	1,945
Malaysia	2,520	2,291	2,164
India	2,510	2,285	2,211
Mexico	2,659	2,553	2,263
Vietnam	3,418	2,788	2,224
All other destination markets	2,431	2,326	2,090
Total Exports from China	2,529	2,311	2,093
	Share of quantity (percent)		
Exports from China to the United States	15.4	17.0	22.1
Exports from China to other major destination markets.--			
Korea	10.5	10.8	6.7
Thailand	3.9	4.9	5.4
Nigeria	7.6	6.6	5.2
Indonesia	6.1	4.5	4.4
Malaysia	4.4	4.6	3.7
India	4.1	4.6	3.7
Mexico	1.4	1.8	3.5
Vietnam	11.7	6.0	3.4
All other destination markets	34.9	39.3	41.9
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 January 4, 2016.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-7 presents data on U.S. importers' reported inventories of CAAS. While inventories of imports from China increased in each year between 2014 and 2016, its ratio to U.S. imports, to U.S. shipments of imports, and to total shipments of imports fluctuated, ending lower in 2016 than in 2014.

Table VII-7
CAAS: U.S. importers' end-of-period inventories of imports by source, 2014-16, January to September 2016, and January to September 2017

* * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of CAAS from China after September 31, 2017. Data on outstanding orders from the 33 responding importers is reported in table VII-8.

Table VII-8
CAAS: Arranged imports, October 2017 through September 2018

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

There are no known antidumping or countervailing duty orders on CAAS in third-country markets.[7] Responding foreign producers did not note any third-country trade actions.

NONSUBJECT SOURCES

Exports

Data on global exports of aluminum plates, sheets and strip during 2014-16 are presented in table VII-9. According to GTA, China, Germany, the United States, and Korea were the largest exporters of aluminum plates, sheets and strip in 2016, accounting for 19.1 percent, 16.2 percent, 10.8 percent, and 5.4 percent of global exports of aluminum plates, sheets and strip, respectively. During 2014-16, global exports of aluminum plates, sheets and strip increased 8.0 percent.

[7] Conference transcript, p. 85 (Herrmann); p. 145 (Cannistra).

Table VII-9
Aluminum plates, sheets and strip: Global exports, by exporter, 2014-16

Exporter	Calendar year		
	2014	2015	2016
	Quantity (short tons)		
United States	1,030,437	1,030,149	1,027,706
China	1,916,226	2,062,465	1,806,159
All other major reporting exporters.-- Germany	1,275,281	1,415,422	1,536,044
Korea	510,029	565,667	512,636
France	444,930	424,142	468,244
Switzerland	229,847	276,446	318,548
Italy	262,097	281,647	305,590
Belgium	251,501	276,101	279,568
Bahrain	64,819	177,999	241,197
Japan	249,774	271,705	234,671
Turkey	196,372	208,560	220,615
Spain	71,852	82,791	206,599
All other exporters	2,270,793	2,151,394	2,319,920
Total global exports	8,773,959	9,224,488	9,477,497
	Value (1,000 dollars)		
United States	3,870,847	3,782,679	3,583,388
China	4,845,342	4,766,873	3,780,299
All other major reporting exporters.-- Germany	5,161,698	4,977,069	4,871,254
Korea	1,318,022	1,376,083	1,110,878
France	1,663,556	1,447,731	1,509,750
Switzerland	893,439	906,769	907,208
Italy	970,245	925,056	917,499
Belgium	985,162	958,762	924,553
Bahrain	172,345	375,670	502,779
Japan	971,527	988,826	835,357
Turkey	530,691	503,948	493,106
Spain	283,043	285,183	598,155
All other exporters	7,656,033	6,871,338	6,807,830
Total global exports	29,321,951	28,165,986	26,842,054

Table continued on next page.

Table VII-9--Continued
Aluminum plates, sheets and strip: Global exports, by exporter, 2014-16

Exporter	Calendar year		
	2014	2015	2016
	Unit value (dollars per short ton)		
United States	3,757	3,672	3,487
China	2,529	2,311	2,093
All other major reporting exporters.-- Germany	4,047	3,516	3,171
Korea	2,584	2,433	2,167
France	3,739	3,413	3,224
Switzerland	3,887	3,280	2,848
Italy	3,702	3,284	3,002
Belgium	3,917	3,473	3,307
Bahrain	2,659	2,111	2,085
Japan	3,890	3,639	3,560
Turkey	2,702	2,416	2,235
Spain	3,939	3,445	2,895
All other exporters	3,372	3,194	2,935
Total global exports	3,342	3,053	2,832
	Share of quantity (percent)		
United States	11.7	11.2	10.8
China	21.8	22.4	19.1
All other major reporting exporters.-- Germany	14.5	15.3	16.2
Korea	5.8	6.1	5.4
France	5.1	4.6	4.9
Switzerland	2.6	3.0	3.4
Italy	3.0	3.1	3.2
Belgium	2.9	3.0	2.9
Bahrain	0.7	1.9	2.5
Japan	2.8	2.9	2.5
Turkey	2.2	2.3	2.3
Spain	0.8	0.9	2.2
All other exporters	25.9	23.3	24.5
Total global exports	100.0	100.0	100.0

Source: Official export statistics under HS subheadings 7606.11, 7606.12, 7606.91, and 7606.92 as reported by various national statistical authorities in the IHS/GTA database, accessed December 15, 2017.

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, respectively. During 2011-15, global consumption of aluminum flat-rolled products *** percent.

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 20.7 percent.

Table VII-11
Aluminum flat-rolled products: Global production, by country, 2011-15

Item	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 are not available. Data includes 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 86.7 percent during 2011-15, while production capacity in the United States and Germany increased 6.1 percent and 2.3 percent, respectively. During 2011-15, global production capacity increased 32.5 percent.

China's capacity utilization for aluminum flat-rolled products *** during 2011-15, while capacity utilization rates in the United States and Germany *** (see table VII-13).

Table VII-12
Aluminum flat-rolled products: Global production capacity, by country, 2011-15

Item	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	34,479	37,299	39,791

Note.—Data for 2016 are not available. Data includes 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

Item	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 are not available. Data includes 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.

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, 12/4/2017	*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, 12/8/2017	*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

APPENDIX B

CONFERENCE WITNESSES

CONFERENCE WITNESSES

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

Subject: Common Alloy Aluminum Sheet from China

Inv. Nos.: 701-TA-591 and 731-TA-1399 (Preliminary)

Date and Time: December 21, 2017 - 12:30 p.m.

Sessions were held in connection with these preliminary phase investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

In Support of Imposition (**John M. Herrmann**, Kelley Drye & Warren LLP)
In Opposition to Imposition (**Kristin Mowry**, 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 Trade Enforcement Working Group
("the Domestic Industry")

Christopher R. Clegg, Executive Vice President,
General Counsel & Secretary Aleris Corporation

Michael Pusateri, Director – Marketing North America,
Aleris Corporation

Patrick Boittiaux, Vice President – North America – Industrial
and Commercial Transportation, 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

In Support of the Imposition of
Antidumping and Countervailing Duty Orders (continued):

Chester Roush, Chief Commercial Officer, JW Aluminum Company

Beatriz Landa, Vice President and General Manager
Specialty Products, Novelis Corporation

John Zanelli, Senior Manager, Novelis Corporation

Holly Hart, Legislative Director and Assistant to the President,
United Steel, Paper and Forestry, Rubber, Manufacturing, Energy,
Allied Industrial and Service Workers International Union

Brad Hudgens, Georgetown Economic Services, LLC

John M. Herrmann)
Paul C. Rosenthal) – OF COUNSEL
Grace W. Kim)

In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:

Crowell & Moring, LLP
Washington, DC
on behalf of

Valeo North America, Inc. ("Valeo)

Rogelio Garcia, Site Purchasing Director, Valeo

Albert Wang, Sales and Marketing Director, Yinbang

Daniel Cannistra) – OF COUNSEL

Mowry & Grimson, PLLC
Washington, DC
on behalf of

National Marine Manufacturers Association

John McKnight, Senior Vice President Government Affairs,
National Marine Manufacturers Association

Kristin Mowry) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)
In Opposition to Imposition (**Daniel Cannistra,** Crowell & Moring, LLP)

APPENDIX C

SUMMARY DATA

Table C-1
CAAS: Summary data concerning the U.S. market, 2014-16, January to September 2016, and January to September 2017
(Quantity=short tons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to September		Calendar year			Jan-Sep
	2014	2015	2016	2016	2017	2014-16	2014-15	2015-16	2016-17
U.S. consumption quantity:									
Amount	1,900,149	1,966,177	1,986,769	1,507,806	1,637,202	4.6	3.5	1.0	8.6
Producers' share (fn1)	64.9	58.9	58.0	58.3	54.2	(6.9)	(5.9)	(0.9)	(4.1)
Importers' share (fn1):									
China	11.0	15.1	15.3	15.2	18.8	4.3	4.1	0.2	3.6
Nonsubject sources	24.2	26.0	26.7	26.5	27.0	2.6	1.8	0.8	0.5
All import sources	35.1	41.1	42.0	41.7	45.8	6.9	5.9	0.9	4.1
U.S. consumption value:									
Amount	5,536,652	5,419,531	5,013,029	3,801,198	4,525,327	(9.5)	(2.1)	(7.5)	19.1
Producers' share (fn1)	65.1	57.9	57.8	58.1	55.6	(7.3)	(7.2)	(0.1)	(2.5)
Importers' share (fn1):									
China	9.5	13.6	13.1	12.9	16.5	3.6	4.1	(0.5)	3.5
Nonsubject sources	25.4	28.5	29.1	29.0	28.0	3.7	3.1	0.7	(1.0)
All import sources	34.9	42.1	42.2	41.9	44.4	7.3	7.2	0.1	2.5
U.S. imports from:									
China:									
Quantity	208,744	296,495	303,270	229,342	307,638	45.3	42.0	2.3	34.1
Value	526,760	739,731	656,865	491,111	745,252	24.7	40.4	(11.2)	51.7
Unit value	$2,523	$2,495	$2,166	$2,141	$2,422	(14.2)	(1.1)	(13.2)	13.1
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Nonsubject sources:									
Quantity	458,926	511,084	531,439	399,569	441,866	15.8	11.4	4.0	10.6
Value	1,406,340	1,542,756	1,460,422	1,103,024	1,265,724	3.8	9.7	(5.3)	14.8
Unit value	$3,064	$3,019	$2,748	$2,761	$2,865	(10.3)	(1.5)	(9.0)	3.8
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	667,670	807,579	834,708	628,911	749,504	25.0	21.0	3.4	19.2
Value	1,933,100	2,282,487	2,117,287	1,594,135	2,010,976	9.5	18.1	(7.2)	26.1
Unit value	$2,895	$2,826	$2,537	$2,535	$2,683	(12.4)	(2.4)	(10.3)	5.9
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	1,575,550	1,584,050	1,542,800	1,159,269	1,175,269	(2.1)	0.5	(2.6)	1.4
Production quantity	1,336,212	1,230,158	1,239,737	937,504	954,661	(7.2)	(7.9)	0.8	1.8
Capacity utilization (fn1)	84.8	77.7	80.4	80.9	81.2	(4.5)	(7.2)	2.7	0.4
U.S. shipments:									
Quantity	1,232,479	1,158,598	1,152,061	878,895	887,698	(6.5)	(6.0)	(0.6)	1.0
Value	3,603,552	3,137,044	2,895,742	2,207,063	2,514,351	(19.6)	(12.9)	(7.7)	13.9
Unit value	$2,924	$2,708	$2,514	$2,511	$2,832	(14.0)	(7.4)	(7.2)	12.8
Export shipments:									
Quantity	76,250	76,459	71,069	56,265	54,337	(6.8)	0.3	(7.0)	(3.4)
Value	229,024	269,780	185,563	146,152	157,424	(19.0)	17.8	(31.2)	7.7
Unit value	$3,004	$3,528	$2,611	$2,598	$2,897	(13.1)	17.5	(26.0)	11.5
Ending inventory quantity	200,524	195,626	212,233	199,071	228,396	5.8	(2.4)	8.5	14.7
Inventories/total shipments (fn1)	15.3	15.8	17.4	16.0	18.2	2.0	0.5	1.5	2.2
Production workers	5,664	5,519	5,472	5,371	5,452	(3.4)	(2.6)	(0.9)	1.5
Hours worked (1,000s)	12,493	13,420	12,282	8,918	9,176	(1.7)	7.4	(8.5)	2.9
Wages paid ($1,000)	367,608	393,487	366,443	271,881	291,356	(0.3)	7.0	(6.9)	7.2
Hourly wages (dollars)	$29.43	$29.32	$29.84	$30.49	$31.75	1.4	(0.4)	1.8	4.1
Productivity (short tons per 1,000 hours)	107.0	91.7	100.9	105.1	104.0	(5.6)	(14.3)	10.1	(1.0)
Unit labor costs	$275	$320	$296	$290	$305	7.4	16.3	(7.6)	5.2
Net sales:									
Quantity	1,308,729	1,235,056	1,223,129	935,160	942,034	(6.5)	(5.6)	(1.0)	0.7
Value	3,832,576	3,406,824	3,081,306	2,353,215	2,671,774	(19.6)	(11.1)	(9.6)	13.5
Unit value	$2,928	$2,758	$2,519	$2,516	$2,836	(14.0)	(5.8)	(8.7)	12.7
Cost of goods sold (COGS)	3,613,266	3,180,309	2,840,134	2,158,835	2,495,252	(21.4)	(12.0)	(10.7)	15.6
Gross profit or (loss)	219,310	226,515	241,172	194,380	176,522	10.0	3.3	6.5	(9.2)
SG&A expenses	130,144	158,286	136,894	98,655	111,990	5.2	21.6	(13.5)	13.5
Operating income or (loss)	89,166	68,229	104,278	95,725	64,532	16.9	(23.5)	52.8	(32.6)
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	84,199	124,124	148,307	100,187	115,757	76.1	47.4	19.5	15.5
Unit COGS	$2,761	$2,575	$2,322	$2,309	$2,649	(15.9)	(6.7)	(9.8)	14.7
Unit SG&A expenses	$99	$128	$112	$105	$119	12.5	28.9	(12.7)	12.7
Unit operating income or (loss)	$68	$55	$85	$102	$69	25.1	(18.9)	54.3	(33.1)
Unit net income or (loss)	***	***	***	***	***	***	***	***	***
COGS/sales (fn1)	94.3	93.4	92.2	91.7	93.4	(2.1)	(0.9)	(1.2)	1.7
Operating income or (loss)/sales (fn1)	2.3	2.0	3.4	4.1	2.4	1.1	(0.3)	1.4	(1.7)
Net income or (loss)/sales (fn1)	***	***	***	***	***	***	***	***	***

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined.

Source: Compiled data submitted in response to Commission questionnaire and official U.S. import statistics using 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 December 19, 2017.

APPENDIX D

QUARTERLY U.S. IMPORT DATA ON CLAD AND NON-CLAD CAAS

Table D-1
CAAS: Quarterly U.S. imports, by source and by type, January 2014 through September 2017

Period	China clad HTS numbers			China non-clad HTS numbers		
	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)
2014:						
Jan.-Mar.	730	3,215	4,406	30,533	75,423	2,470
Apr.-Jun.	712	2,869	4,027	38,315	94,005	2,453
Jul.-Sep.	746	3,270	4,382	57,237	143,339	2,504
Oct.-Dec.	941	3,656	3,883	82,658	213,992	2,589
2015:						
Jan.-Mar.	686	2,731	3,981	92,206	235,841	2,558
Apr.-Jun.	1,176	4,716	4,011	87,303	219,174	2,511
Jul.-Sep.	1,099	4,427	4,028	61,407	153,126	2,494
Oct.-Dec.	913	3,752	4,109	55,580	131,591	2,368
2016:						
Jan.-Mar.	899	3,193	3,552	65,009	139,213	2,141
Apr.-Jun.	1,226	4,258	3,472	86,249	181,259	2,102
Jul.-Sep.	1,601	5,438	3,396	78,085	170,639	2,185
Oct.-Dec.	1,365	4,547	3,330	73,927	165,754	2,242
2017:						
Jan.-Mar.	2,766	7,662	2,770	74,874	175,102	2,339
Apr.-Jun.	1,919	6,736	3,510	126,662	306,735	2,422
Jul.-Sep.	1,796	6,248	3,479	106,102	263,414	2,483

Table continued on next page.

Table D-1--Continued
CAAS: Quarterly U.S. imports, by source and by type, January 2014 through September 2017

Period	Nonsubject sources clad HTS numbers			Nonsubject sources non-clad HTS numbers		
	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)
2014:						
Jan.-Mar.	5,652	19,185	3,394	94,562	273,652	2,894
Apr.-Jun.	4,480	16,624	3,711	112,150	332,528	2,965
Jul.-Sep.	4,786	17,587	3,675	109,623	340,715	3,108
Oct.-Dec.	4,128	15,362	3,722	123,546	390,687	3,162
2015:						
Jan.-Mar.	4,609	17,593	3,817	129,305	408,992	3,163
Apr.-Jun.	6,333	25,281	3,992	120,192	373,527	3,108
Jul.-Sep.	4,995	18,114	3,627	124,078	360,637	2,907
Oct.-Dec.	7,098	20,938	2,950	114,475	317,674	2,775
2016:						
Jan.-Mar.	5,721	18,188	3,179	120,673	339,251	2,811
Apr.-Jun.	6,848	20,876	3,049	130,955	352,953	2,695
Jul.-Sep.	6,160	19,524	3,169	129,212	352,231	2,726
Oct.-Dec.	5,345	17,891	3,347	126,525	339,507	2,683
2017:						
Jan.-Mar.	5,008	17,142	3,423	141,260	390,349	2,763
Apr.-Jun.	5,633	18,849	3,346	140,349	403,198	2,873
Jul.-Sep.	5,084	18,409	3,621	144,532	417,777	2,891

Table continued on next page.

Table D-1--Continued
CAAS: Quarterly U.S. imports, by source and by type, January 2014 through September 2017

Period	All sources clad HTS numbers			All sources non-clad HTS numbers		
	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)	Quantity (short tons)	Value (1,000 dollars)	Unit value (dollars per short ton)
2014:						
Jan.-Mar.	6,382	22,400	3,510	125,095	349,075	2,790
Apr.-Jun.	5,193	19,493	3,754	150,465	426,533	2,835
Jul.-Sep.	5,532	20,857	3,770	166,860	484,055	2,901
Oct.-Dec.	5,069	19,018	3,752	206,204	604,679	2,932
2015:						
Jan.-Mar.	5,295	20,324	3,838	221,511	644,833	2,911
Apr.-Jun.	7,508	29,996	3,995	207,494	592,700	2,856
Jul.-Sep.	6,094	22,541	3,699	185,485	513,763	2,770
Oct.-Dec.	8,011	24,690	3,082	170,055	449,265	2,642
2016:						
Jan.-Mar.	6,620	21,381	3,230	185,682	478,464	2,577
Apr.-Jun.	8,074	25,134	3,113	217,204	534,213	2,459
Jul.-Sep.	7,761	24,962	3,216	207,297	522,870	2,522
Oct.-Dec.	6,710	22,439	3,344	200,453	505,261	2,521
2017:						
Jan.-Mar.	7,774	24,804	3,191	216,135	565,451	2,616
Apr.-Jun.	7,552	25,585	3,388	267,011	709,934	2,659
Jul.-Sep.	6,880	24,658	3,584	250,633	681,191	2,718

Source: Compiled from official U.S. import statistics using 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 December 19, 2017.