Sodium Sulfate Anhydrous from Canada

Investigation No. 731-TA-1446 (Final)

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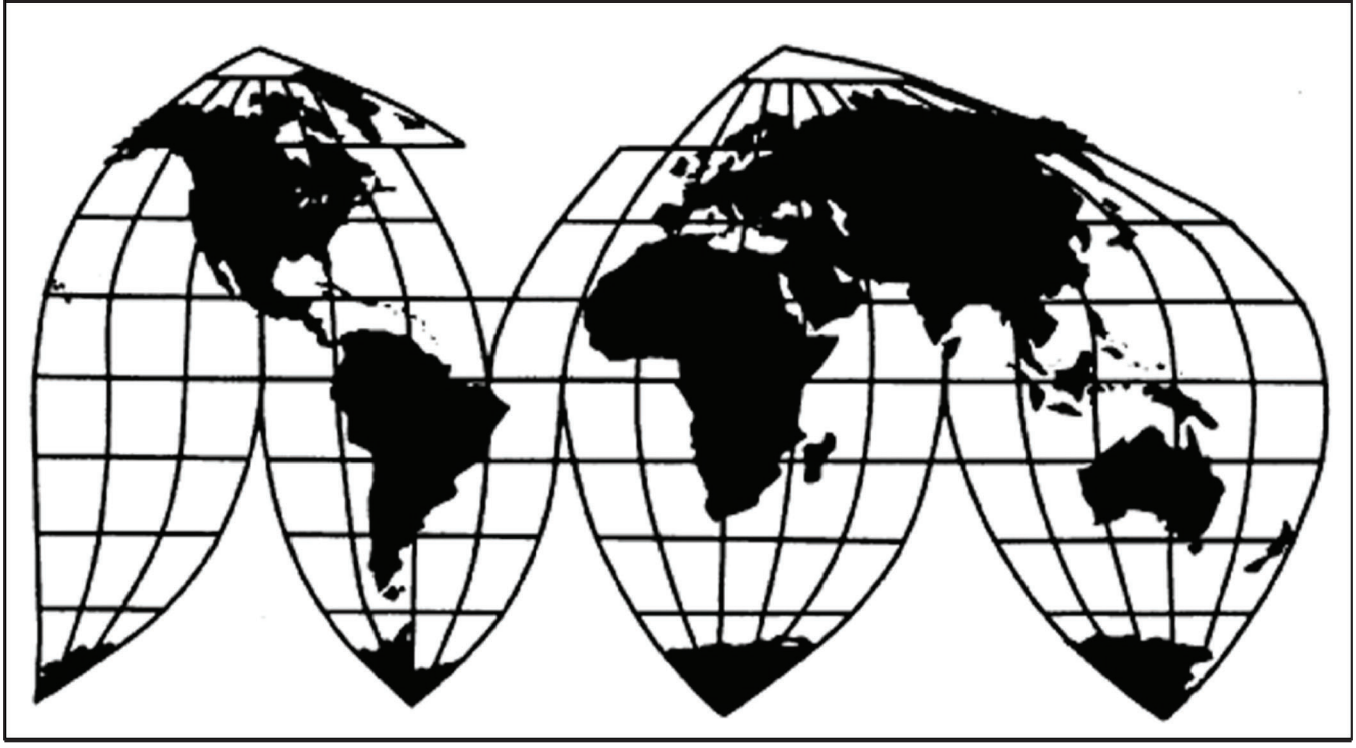
U.S. International Trade Commission



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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1446 (Final)

Sodium Sulfate Anhydrous from Canada

DETERMINATION

On the basis of the record[1] developed in the subject investigation, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded by reason of imports of sodium sulfate anhydrous from Canada, provided for in subheadings 2833.11.10 and 2833.11.50 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").[2]

BACKGROUND

The Commission instituted this investigation effective March 28, 2019, following receipt of a petition filed with the Commission and Commerce by Cooper Natural Resources, Inc., Fort Worth, Texas; Elementis Global LLC, East Windsor, New Jersey; and Searles Valley Minerals, Inc., Overland Park, Kansas. The Commission scheduled the final phase of the investigation following notification of a preliminary determination by Commerce that imports of sodium sulfate anhydrous from Canada were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of December 3, 2019 (84 FR 66218). In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, and in accordance with 19 U.S.C. section 1677c(a)(1), the Commission did not cancel its hearing scheduled for March 19, 2020, but conducted its hearing through a series of written questions, submissions of written testimony, written responses to questions, and posthearing briefs; all persons who requested the opportunity were permitted to participate.

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

[2] 85 FR 17534 (March 30, 2020).

Views of the Commission

Based on the record in the final phase of this investigation, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of sodium sulfate anhydrous ("SSA") from Canada found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value.[1]

I. Background

Parties to the Investigation. This investigation resulted from a petition filed on March 28, 2019, by Cooper Natural Resources, Inc. ("CNR"), Elementis Global LLC ("Elementis"), and Searles Valley Minerals, Inc. ("SVM") (collectively "Petitioners"), domestic producers of SSA. Petitioners submitted written witness testimony, responded to the Commission's hearing questions, and submitted prehearing and posthearing briefs and final comments.[2]

[1] No party argues that the establishment of an industry in the United States is materially retarded by subject imports of SSA from Canada.

[2] *Sodium Sulfate Anhydrous from Canada; Scheduling of the Final Phase of an Antidumping Duty Investigation*, 84 Fed. Reg. 66218, 66219 (Dec. 3, 2019). In accordance with 19 U.S.C. § 1677c(a)(1), and in light of the restrictions on access to the Commission building due to the COVID-19 pandemic until May 12, the Commission conducted its hearing, originally scheduled for March 19, 2020, through a series of written questions, submissions of written testimony, written responses to questions, and posthearing briefs as set forth in procedures provided to the parties and announced on its website on March 12, 2020. *See* Email from Keysha Martinez to Thomas J. Trendl, Richard P. Ferrin, Douglas J. Heffner, and Daniel L. Porter (Mar. 16, 2020), EDIS Doc. No. 705373.

On March 17, 2020, Petitioners requested that the Commission reschedule its hearing, arguing that the domestic producers will be prejudiced if the investigation proceeded without an in-person hearing. *See* Letter from Thomas J. Trendl to Lisa R. Barton (Mar. 17, 2020), EDIS Doc. No. 705167. Respondents objected to the Petitioners' request. *See* Letter from Douglas J. Heffner to Lisa R. Barton (Mar. 19, 2020), EDIS Doc. No. 705390; Letter from Daniel L. Porter to Lisa R. Barton, (Mar. 19, 2020), EDIS Doc. 705409. Although the Commission restricted access to its offices in March in response to the COVID-19 pandemic, the U.S. government has not closed and the Commission remains operational. Consequently, Commission regulations for tolling its deadlines during periods in which the Federal Government is closed do not apply. Prior to Petitioners' request, the Commission's COVID-19 Action Plan restricted access by visitors to the Commission building for 60 days (to May 12), unless extended. Therefore, the Commission could not reschedule the hearing as requested and make its determination by the May 14 statutory deadline; indeed, at the time of the Commission vote on April 23 in this investigation, the closure of the Commission building to the public had been extended to June 10. Moreover, the Commission adopted procedures to conduct its hearing in this investigation in writing, which provided the parties ample opportunity to present their case and address Commissioners' questions through a series of written submissions, as outlined above.

Respondent Saskatchewan Mining and Minerals, Inc. ("SMMI"), a producer, exporter, and U.S. importer of SSA from Canada, submitted written witness testimony, responded to the Commission's hearing questions, and submitted prehearing and posthearing briefs and final comments. The government of Canada also responded to the Commission's hearing questions and submitted prehearing and posthearing briefs and final comments in opposition to imposition of duties.

Data Coverage. U.S. industry data are based on the questionnaire responses of seven firms that accounted for the vast majority of U.S. production of SSA in 2018.[3] U.S. import data are based on official Commerce import statistics under HTS statistical reporting number 2833.11.5010 and from the questionnaire responses of nine U.S. importers that accounted for the vast majority (*** percent) of U.S. imports of SSA from Canada and the majority (*** percent) of total U.S. imports of SSA in 2018 under the relevant HTS statistical reporting number.[4] Foreign industry data are based on the questionnaire responses of two producers of subject merchandise, SMMI and TODA Advanced Materials ("TODA"), that accounted for all known production of SSA in Canada and all exports of SSA from Canada to the United States in 2018.[5]

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[6] 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

[3] Confidential Report ("CR") at I-4/Public Report ("PR") at I-4. JCI Controls, Inc. ("JCI"), a U.S. producer of synthetic SSA, did not respond to the Commission's questionnaire. *Id.* at I-4 n.7. Staff estimates that JCI accounted for approximately *** percent of total U.S. production of SSA in 2018. *Id*.

[4] CR/PR at I-4. Based on official import statistics, the questionnaire response of U.S. importer SMMI accounted for the vast majority of subject imports from Canada during the January 2016 to September 2019 period of investigation ("POI"). *Id.* at I-4 n.8.

[5] CR/PR at I-4. SMMI accounted for the vast majority of production of SSA in Canada (*** percent) and *** exports of SSA from Canada to the United States in 2018. *Id.* at I-4 n.10; Table VII-1.

[6] 19 U.S.C. § 1677(4)(A).

the product."[7] 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."[8]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by Commerce.[9] Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is "necessarily the starting point of the Commission's like product analysis."[10] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[11] 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.[12] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[13] The

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(10).

[9] 19 U.S.C. § 1677(10). The Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See*, *e.g.*, *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

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

[11] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington Co. v. United States*, 747 F. Supp. 744*,* 748–52 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

[12] *See*, *e.g.*, *Cleo*, 501 F.3d at 1299; *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*, 747 F. Supp. at 749 n.3 ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

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

Commission looks for clear dividing lines among possible like products and disregards minor variations.[14]

B. Product Description

Commerce defined the scope of the imported merchandise under investigation as follows:

> … sodium sulfate (Na_2SO_4) (Chemical Abstracts Service (CAS) Number 7757–82–6) that is anhydrous (i.e., containing no water), regardless of purity, grade, color, production method, and form of packaging, in which the percentage of particles between 20 mesh and 100 mesh, based on U.S. mesh series screens, ranges from 10–95% and the percentage of particles finer than 100 mesh, based on U.S. mesh series screens, ranges from 5–90%.
>
> Excluded from the scope of this investigation are specialty sodium sulfate anhydrous products, which are products whose particle distributions fall outside the described ranges. Glauber's salt ($Na_2SO_4 \cdot 10H_2O$), also known as sodium sulfate decahydrate, an intermediate product in the production of sodium sulfate anhydrous that has no known commercial uses, is not included within the scope of the investigation, although some end-users may mistakenly refer to sodium sulfate anhydrous as Glauber's salt. Other forms of sodium sulfate that are hydrous (i.e., containing water) are also excluded from the scope of the investigation.
>
> The merchandise subject to this investigation is classifiable under Harmonized Tariff Schedule of the United States (HTSUS) subheading 2833.11.5010. Subject merchandise may also be classified under 2833.11.1000, 2833.11.5050, and 2833.19.0000. Although the HTSUS subheadings and CAS registry number are

[14] *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.").

provided for convenience and customs purposes, the written description of the scope of the investigation is dispositive.[15]

SSA within the scope of this investigation is a white, granular, crystalized powder with the chemical formula Na_2SO_4.[16] SSA is generally used in the production of dry powder laundry and dishwasher detergents, food starches, textiles, pulp and paper, glass, and other products.[17] SSA is either mined from natural sources or generated as part of a synthetic process.[18]

C. Domestic Like Product Analysis

In its preliminary determination, the Commission defined a single domestic like product consisting of all SSA, both natural and synthetic, coextensive with the scope.[19] The Commission determined that all SSA is chemically identical, used for the same purposes, and natural and synthetic SSA are largely interchangeable and perceived to be the same product.[20]

The record in the final phase of this investigation does not contain any new information concerning the characteristics and uses of domestically produced SSA.[21] In light of this and the lack of contrary argument, we define a single domestic like product consisting of all SSA, coextensive with the scope, for the same reasons set forth in the preliminary determination.

III. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[22] In defining the domestic

[15] *Sodium Sulfate Anhydrous from Canada: Final Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstance*s, 85 Fed. Reg. 17534, 17535 (Mar. 30, 2020) ("Commerce Final Determination").

[16] CR/PR at I-7.

[17] CR/PR at I-3.

[18] CR/PR at I-9.

[19] *Sodium Sulfate Anhydrous from Canada*, Inv. No. 731-TA-1446 (Preliminary), USITC Pub. 4895 (May 2019) ("Preliminary Determination") at 6.

[20] Preliminary Determination, USITC Pub. 4895 at 7.

[21] *See* CR/PR at I-7 to I-11. Petitioners argue that the Commission should find a single domestic like product, specifically SSA. Petitioners' Prehearing Brief at 2-3. Respondents do not contest the definition of the domestic like product

[22] 19 U.S.C. § 1677(4)(A).

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

In its preliminary determination, the Commission defined the domestic industry to include all domestic producers of SSA within the scope definition, excluding Giles Chemical Industries, Inc. ("Giles") and Saltex, LLC ("Saltex").[23] The Commission determined that Giles and Saltex engage primarily in marketing and/or distribution activities for U.S. synthetic SSA producers, and that the sole arguably production-related activity they undertook entailed bagging or packing SSA, which appeared to entail minor costs and add minimal value to SSA.[24]

The record in the final phase of this investigation does not contain any new information that warrants revisiting the finding in the preliminary determination that these entities do not engage in sufficient production-related activities to be considered domestic producers.[25] There are no related party issues in this investigation.[26] Therefore, we define the domestic industry to include all domestic producers of SSA, which does not include Giles and Saltex.

IV. No Material Injury by Reason of Subject Imports[27]

Based on the record in the final phase of this investigation, we find that an industry in the United States is not materially injured by reason of dumped imports of SSA from Canada.

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[23] Preliminary Determination, USITC Pub. 4895 at 8.

[24] Preliminary Determination, USITC Pub. 4895 at 8.

[25] *See* CR/PR at III-2 n.2, VI-13 n.15. Petitioners argue that the Commission should define the domestic industry as all U.S. SSA producers. Petitioners' Prehearing Brief at 3. Respondents do not contest the definition of the domestic industry.

[26] No U.S. producer directly imported subject merchandise or is related to an exporter or importer of subject merchandise. CR/PR at III-2.

[27] 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 generally be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B). The exceptions to this general rule are not applicable to this investigation.

Based on official Commerce import statistics under HTS statistical reporting number 2833.11.5010, subject imports from Canada accounted for 82.7 percent of total U.S. imports of SSA in the 12-month period (March 2018 to February 2019) preceding the filing of the petition. CR/PR at Table IV-3. Because this exceeds the statutory threshold, we find that subject imports of SSA from Canada are not negligible.

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[28] 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.[29] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[30] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[31] 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."[32]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[33] 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.[34] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[35]

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[28] 19 U.S.C. §§ 1671d(b), 1673d(b).

[29] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[30] 19 U.S.C. § 1677(7)(A).

[31] 19 U.S.C. § 1677(7)(C)(iii).

[32] 19 U.S.C. § 1677(7)(C)(iii).

[33] 19 U.S.C. §§ 1671d(b), 1673d(b).

[34] *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).

[35] The Federal Circuit, in addressing the causation standard of the statute, observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than

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.[36] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[37] Nor does the

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fair value meets the causation requirement." *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass'n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

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

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

"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.[38] It is clear that the existence of injury caused by other factors does not compel a negative determination.[39]

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."[40] The Commission ensures that it has "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [41] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[42]

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.[43] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[44]

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

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

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

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

[42] *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.").

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

[44] *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.").

B. Conditions of Competition and the Business Cycle

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

1. Demand Considerations

U.S. demand for SSA is driven by demand for domestically produced downstream products, including powdered laundry detergent, paper, glass, and starch.[45] SSA accounts for a small share of the cost of these end-use products.[46] While most U.S. producers and importers and a plurality of purchasers reported a decrease in U.S. demand for SSA,[47] apparent U.S. consumption of SSA increased modestly over the POI, January 2016 to September 2019. It rose by 2.9 percent from 2016 to 2018, increasing from 364,770 short tons in 2016 to 377,432 short tons in 2017 before decreasing to 375,190 short tons in 2018.[48] It was 1.1 percent higher in interim 2019, at 278,584 short tons, than in interim 2018, at 275,567 short tons.[49]

2. Supply Considerations

The domestic industry was the largest source of supply in the U.S. market during the POI. Its share of apparent U.S. consumption was 86.8 percent in 2016, 83.6 percent in 2017, and 82.6 percent in 2018.[50] It was 83.1 percent in interim 2018 and 77.2 percent in interim 2019.[51]

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[45] CR/PR at II-7.

[46] CR/PR at II-7.

[47] *See* CR/PR at Table II-4. Market participants reported that use of powdered detergents and textile production were declining. *Id.* at II-8. After the record closed, staff realized that *** purchaser questionnaire response was inadvertently omitted from the tabulations in Parts II and V of the Confidential Report. While it does not materially change the data presented in the report, for the purposes of this opinion, we have taken this response into account and adjusted the data accordingly. *See* *** U.S. Purchasers' Questionnaire Response at III-5(a).

[48] CR/PR at Tables IV-4 and C-1.

[49] CR/PR at Tables IV-4 and C-1

[50] CR/PR at Table IV-4.

[51] CR/PR at Table IV-4.

As discussed earlier, the domestic like product is either naturally or synthetically produced.[52] SSA is also produced as a primary product or as a co- or byproduct.[53] CNR naturally produces SSA as a primary product, while SVM naturally produces SSA and Elementis synthetically produces SSA as co-products.[54] The remaining domestic producers produce SSA synthetically as a byproduct.[55] Synthetic byproduct producers' SSA capacity and production is generally driven by the production of and demand for other primary products, with SSA being produced as a byproduct during the production of those other products.[56] Throughout the POI, natural producers were responsible for *** of the domestic industry's capacity and production,[57] but they also exported *** of their total shipments.[58] Hence, synthetic SSA producers were responsible for *** of the domestic industry's U.S. shipments.[59] Moreover,

[52] U.S. producers of natural SSA are CNR and SVM. CR/PR at Table III-1. U.S. producers of synthetic SSA are East Penn Manufacturing Co., Inc. ("East Penn"), Eco-Bat New York, LLC ("Eco-Bat"), Elementis, Evonik Corporation ("Evonik"), GEO Specialty Chemicals, Inc. ("GEO"), and JCI. *Id.* at III-1 n.1, Table III-1.

[53] CR/PR at VI-1. Co-products (or joint products) "result from those manufacturing operations in which companies simultaneously produce two or more products of significant value. Byproducts are merely incidental products resulting from the processing of another product." *Id.* at n.4 *quoting* L. Gayle Rayburn, *Cost Accounting: Using a Cost Management Approach*, 258-259 (Irwin) (1993). Moreover, primary and co-products are routinely assigned fully absorbed manufacturing costs, whereas byproducts are not. *Id.* at n.4.

[54] CR/PR at VI-1. SSA accounts for a *** share of co-product producers SVM and Elementis's overall operations. *Id*.

[55] CR/PR at VI-1. Synthetic byproduct producers East Penn, Eco-Bat, Evonik, and GEO reported selling all SSA they produced through or to Giles or Saltex. *Id.* at II-2. Giles reported having long-term marketing contracts with ***. Giles's Purchaser Questionnaire Response at I-1a. Saltex, a joint venture between CNR and Giles, has an exclusive marketing contract with ***. *Id.* ***. Petitioners' Postconference Brief, Response to Staff Questions at 2-3, EDIS Doc. No. 673908. ***. *Id.*; Petitioners' Answers to First Round of Commissioner Questions at 3.

Giles provided a purchaser questionnaire in the final phase of this investigation and reported that ***. Giles's Purchaser Questionnaire Response at I-1a. Furthermore, a representative for Giles submitted written testimony explaining that Giles "is largely compensated through commissions on sales of SSA and through revenue sharing agreements." Petitioners' Answers to First Round of Commissioner Questions, Testimony of Guy Wrenn (President of Giles) at 1. However, Petitioners also reported that ***. Petitioners' Answers to Second Round of Commissioner Questions at 54. Furthermore, *** of the byproduct producers appear to have reported revenue in a *** manner, *i.e.*, average per short ton revenue appears to reflect *** throughout the period. CR/PR at VI-13 n.14. Giles ***. *Id.* at II-2 n.8

[56] CR/PR at III-3. Elementis, synthetic SSA co-product producer, asserts that its business model considers SSA equally with its other products. *Id.*; Petitioners' Prehearing Brief at 13.

[57] *Compare* CR/PR at Tables III-5 and III-6.

[58] *See* CR/PR at Table III-8.

[59] *Compare* CR/PR Tables III-8 and III-9.

throughout the POI, synthetic producers' proportion of total U.S. shipments by the domestic industry increased.[60]

Domestic producers reported some supply constraints during the POI. Elementis, a U.S. producer of synthetic SSA, reported temporary production curtailments in October 2018 due to Hurricane Florence, and SVM, a U.S. producer of natural SSA, ***.[61]

Subject imports were the second largest source of supply in the U.S. market. Their share of apparent U.S. consumption was 10.7 percent in 2016, 14.4 percent in 2017, and 14.8 percent in 2018.[62] It was 14.6 percent in interim 2018 and 18.4 percent in in interim 2019.[63] SMMI accounted for the vast majority of subject imports during the POI.[64] SMMI reported that its capacity and production were curtailed in 2015 and 2016 primarily due to weather-related conditions in 2014 and 2015 that limited its harvests of naturally occurring raw material.[65] SMMI entered into a contract with U.S. producer SVM in 2014 to purchase SSA, and SMMI used SVM's domestically produced SSA to supply its U.S. customers in 2015 and 2016.[66]

Nonsubject imports were the smallest source of supply in the U.S. market. Their share of apparent U.S. consumption was 2.6 percent in 2016, 2.0 percent in 2017, and 2.6 percent in 2018.[67] It was 2.3 percent in interim 2018 and 4.4 percent in interim 2019.[68] The largest sources of nonsubject imports during 2016 to 2018 were India, China, and Japan.[69]

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[60] Synthetic producers' share of the domestic industry's total U.S. shipments rose by *** percentage points from 2016 to 2018, increasing from *** percent in 2016 to *** percent in 2017 and *** percent in 2018. It was *** percentage points higher in interim 2019, at *** percent, than in interim 2018 at *** percent. *Derived from* CR/PR at Tables III-7, III-8 and III-9.

[61] CR/PR at III-2, Table III-3.

[62] CR/PR at Table IV-4.

[63] CR/PR at Table IV-4.

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

[65] CR/PR at I-10, VII-6; Conf. Tr. at 134 (McCann), EDIS Doc. No. 673744.

[66] *See* SMMI's Answers to Second Round of Commissioner Questions at Exhibit C. Most of SMMI's shipments of SSA that it purchased from SVM are reflected in U.S. shipment totals given that SMMI shipped the SSA that it purchased from SVM directly to purchasers in the United States. CR/PR at VII-6 n.7; Petitioners' Answers to First Round of Commissioner Questions at 4. SMMI also reported that its production was further constrained in 2016 due to depleted sodium sulfate reserves as a result of a caustic soda production feasibility study that reduced its production of SSA that year. CR/PR at VII-6.

[67] CR/PR at Table IV-4.

[68] CR/PR at Table IV-4.

[69] CR/PR at II-6.

3. Substitutability and Other Conditions

The record indicates that there is a moderate-to-high degree of substitutability between domestically produced SSA and subject imports.[70] All U.S. producers and the majority of purchasers reported that the domestic like product and subject imports are always or frequently interchangeable.[71] SMMI indicated that they are *** interchangeable.[72] When asked to compare SSA produced in the United States and Canada on 15 separate purchasing factors, most purchasers reported that the domestic product and subject imports were comparable on all but one factor.[73] The one exception was price, where domestic product was identified as superior (*i.e.,* lower priced).[74]

Price is one of several important factors in purchasing decisions, along with quality and availability. When asked to report the top three factors considered in their purchasing decisions, responding purchasers most frequently cited price (22 firms), quality (20 firms), and availability (19 firms).[75] When asked to rate the importance of 15 factors in their purchasing decisions, over half of responding purchasers rated reliability of supply, availability, product consistency, price, quality meets industry standards, U.S. transportation costs, and delivery time as very important.[76] Market participants had mixed responses on the significance in SSA purchasing decisions of differences other than price.[77] While all three responding U.S. producers reported that differences other than price were never significant in purchasing decisions between the domestic product and subject imports, the three responding importers

[70] CR/PR at II-9.

[71] *See* CR/PR at Table II-10; *** U.S. Purchasers' Questionnaire Response at IV-1. Eleven of 23 purchasers indicated that the domestic like product and subject imports are always interchangeable, eight indicated that they are frequently interchangeable, three indicated that they are sometimes interchangeable, and one indicated that they are never interchangeable. *Id.*

[72] SMMI's U.S. Importer Questionnaire at III-20. Two other responding importers indicated that the domestic like product and subject imports are sometimes interchangeable. CR/PR at Table II-10.

[73] *See* CR/PR at Table II-9; *** U.S. Purchasers' Questionnaire Response at IV-3.

[74] Ten of 19 responding purchasers reported that domestic product was superior on price (*i.e.*, lower priced), seven reported that domestic product was comparable, and two reported that it was inferior. CR/PR at Table II-9; *** U.S. Purchasers' Questionnaire Response at IV-3.

[75] CR/PR at Table II-6; *** U.S. Purchasers' Questionnaire Response at III-25. Quality and approved supplier/relationship were the most frequently cited first-most import factor, followed by availability/security of supply. *Id.* Price was the most frequently cited second-most and third-most important factors. *Id.*

[76] CR/PR at Table II-7; *** U.S. Purchasers' Questionnaire Response at II-26.

[77] *See* CR/PR at Table II-12; *** U.S. Purchasers' Questionnaire Response at IV-2.

and 13 of 25 responding purchasers reported that such differences were frequently or always significant.[78]

Raw material costs for the two natural U.S. producers constitute a relatively low portion of the total cost of SSA, while raw material costs for the one synthetic U.S. producer providing data constitute a substantially higher portion of its total cost of SSA.[79] The raw material costs for the two natural U.S. producers and one synthetic U.S. producer combined accounted for 10.6 percent of these U.S. producers' COGS in 2018.[80]

Market participants reported selling the majority of their SSA under long-term or annual contracts. U.S. producers sell the majority of their SSA under long-term and annual contracts, with some short-term contracts and spot sales.[81] SMMI reported selling ***.[82]

Transportation costs can be an important factor in the total cost of purchasing SSA because such costs are high relative to the value of the product. Three of seven responding U.S. producers and *** reported that they typically arrange transportation to their customers.[83] The three responding U.S. producers estimated that their U.S. inland transportation costs accounted for 35 to 36 percent of the total cost of SSA.[84] SMMI estimated that its U.S. inland transportation costs accounted for *** percent.[85]

U.S. producers and SMMI both reported selling on both a delivered and f.o.b. basis. The four U.S. producers of synthetic SSA that sold their product to or through Giles and Saltex did so solely on an f.o.b. basis.[86] The three other responding U.S. producers reported selling on both

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[78] CR/PR at Table II-12; *** U.S. Purchasers' Questionnaire Response at IV-2. SMMI reported that such differences were *** significant. SMMI's U.S. Importer Questionnaire at III-21.

[79] *See* CR/PR at VI-16. For the natural SSA producers, CNR and SVM, brine is a primary raw material with underlying costs including payments for corresponding mineral rights and royalties. *Id.* The corresponding share of natural producers' raw material costs to total cost of goods sold ("COGS") is relatively low, ranging from *** percent to *** percent of COGS. *Id.* Elementis, a synthetic SSA producer, reported raw material cost shares ranging from *** percent to *** percent of COGS. *Id.* Underlying raw material costs reported by Elementis include ***. *Id.*

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

[81] *See* CR/PR at Table V-2.

[82] *See* CR/PR at V-2, Table V-2.

[83] CR/PR at V-1. *** but *** also reported that its customers arranged transportation. *** U.S. Producer's Questionnaire Response at IV-9(b). The remaining four U.S. producers, ***, reported that their agreements with Giles and/or Saltex included Giles and/or Saltex arranging for shipping and marketing of all their SSA. CR/PR at V-1 n.3.

[84] CR/PR at V-1.

[85] CR/PR at V-1.

[86] CR/PR at V-3. As indicated above, these four synthetic producers did not arrange transportation, as they had agreements with Giles and Saltex for shipping all their SSA to the ultimate customers. *Id.* at V-1 n.3.

an f.o.b. and a delivered basis.[87] SMMI reported that ***,[88] although it also reported that approximately *** percent of its sales made out of its U.S. warehouses are f.o.b. warehouse.[89]

The record indicates both overlap and distinctions in the U.S. regions served by U.S. producer and importer sales. Most U.S. producers' sales were made to the Midwest, the Southeast, and Central Southwest regions, with only a small proportion to the Pacific Coast.[90] SMMI reported selling most of its SSA to the *** regions, with only a small proportion to the ***.[91] There is limited overlap amongst the top SSA customers between U.S. producers and SMMI. Of the ten largest customers listed by CNR, SVM, Elementis, and SMMI, only three overlap: ***.[92] SMMI's largest customer, ***, reported that because ***.[93]

Finally, U.S. producers generally ship their SSA longer distances than SMMI, based on SMMI's U.S. point of shipment. For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles.[94] SMMI sold *** percent within 100 miles of its U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.[95]

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."[96]

Subject import volume increased from 38,883 short tons in 2016 to 54,381 short tons in 2017 and 55,387 short tons in 2018.[97] It was higher in interim 2019, at 51,369 short tons, than

[87] CR/PR at V-3.

[88] CR/PR at V-3.

[89] SMMI's Answers to Second Round of Commissioner Questions at 24.

[90] *See* CR/PR at Table II-2.

[91] *See* SMMI's U.S. Importers' Questionnaire Response at III-10.

[92] *See* SMMI's U.S. Importers' Questionnaire Response at III-22; CNR's, SVM's, and Elementis's U.S. Producers' Questionnaire Response at IV-22.

[93] *** U.S. Purchasers' Questionnaire Response at III-14.

[94] CR/PR at II-3.

[95] SMMI's U.S. Importers' Questionnaire Response at III-9(d). We recognize that the U.S. importers' questionnaire did not specify that the importer's point of shipment was at the U.S. border, so the above data may reflect shipments from SMMI's U.S. warehouses and transloading facilities.

[96] 19 U.S.C. § 1677(7)(C)(i).

[97] CR/PR at Table IV-2. According to SMMI's President, "SMMI experienced poor harvests in the 2014 and 2015 period, due to some abnormal weather conditions. This dramatically reduced the amount of sodium sulfate that SMMI could produce in 2015 and 2016," and resulted in SMMI entering

in interim 2018 at 40,148 short tons.[98] As a share of apparent U.S. consumption, the volume of subject imports accounted for 10.7 percent in 2016, 14.4 percent in 2017, and 14.8 percent in 2018.[99] Their share of apparent U.S. consumption was higher in interim 2019, at 18.4 percent, than in interim 2018, at 14.6 percent.[100]

We find that the volume and increase in volume of subject imports was significant, in absolute terms and relative to U.S. consumption. For the reasons discussed below, however, we do not find that this volume of subject imports had significant price effects, nor do we find that subject imports had a significant adverse impact on the domestic industry.

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the 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.[101]

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into a contract with domestic producer SVM to supply its U.S. customers through 2016. Conf. Tr. at 134-135 (McCann). Thus, as discussed *infra* in section IV.E, the increase in subject import volume and market share in 2017 was largely due to SMMI switching back from purchasing SSA from domestic producer SVM to importing its own SSA from Canada for sale to its U.S. customers. Although the volume of subject imports increased from 2016 to 2018, SMMI reported that its total U.S. shipments of SSA, including the low-priced SSA it purchased from SVM in 2016 for resale to its U.S. customers, decreased from 69,601 short tons in 2016 to 50,647 short tons in 2017 before increasing to 52,718 short tons in 2018. CR/PR at Table VII-2.

[98] CR/PR at Table IV-2.

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

[100] CR/PR at Table IV-4. As discussed *infra* in section IV.E, the higher level of subject import volume and market share in interim 2019 was due to one customer's (***) purchase of SSA from SMMI instead of SVM for reasons other than price-based competition from subject imports. Although the volume of subject imports was higher in interim 2019 than interim 2018, SMMI reported that its U.S. shipments of SSA, not including its U.S. shipments to ***, were lower at *** short tons in interim 2019 than in interim 2018 at *** short tons. SMMI's Answers to First Round of Commissioner Questions at 18.

[101] 19 U.S.C. § 1677(7)(C)(ii).

As previously discussed in section IV.B.3, 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 one of several important factors in purchasing decisions for SSA.[102]

In the preliminary phase of this investigation, the Commission collected quarterly f.o.b. pricing data from U.S. producers and importers on four SSA pricing products shipped to unrelated U.S. customers.[103] Petitioners questioned the probative value of the f.o.b. pricing data, arguing that if the sales terms, shipping points, and transport modes are not comparable, and all relevant costs, including transloading, are not accounted for, then f.o.b. price comparisons are not meaningful.[104] Given the Petitioners' argument, as well as the Commission's observations that transportation costs for SSA are high relative to its value, and that U.S. producers and importers reported that they typically arrange transportation to their customers and quote prices on a delivered basis,[105] the Commission indicated that, in the final phase, it intended to collect pricing data on both a delivered basis and an f.o.b. basis.[106] The Commission invited parties, in their comments on draft questionnaires in the final phase, to address how to improve pricing product comparisons to account for transportation and other costs reflected in delivered prices but not in f.o.b. prices.[107]

[102] Petitioners argue that SSA is a commodity product with competition occurring on the basis of price. *See* Petitioners' Prehearing Brief at 3-5; Petitioners' Posthearing Brief at 4-5. As previously discussed in section IV.B.3, the record indicates that factors other than price, such as quality and availability, are important in purchasing decisions, and a substantial proportion of responding purchasers reported that non-price differences were at least frequently significant in purchasing decisions. Consequently, we do not find that SSA is a product for which price will be the sole determining factor in purchasing decisions. Indeed, 17 of 30 responding purchasers reported that they never or only sometimes purchase the lowest-priced product, while only two reported that they always did so. CR/PR at II-10 to II-11; *** U.S. Purchasers' Questionnaire Response at III-29.

[103] Preliminary Determination, USITC Pub. 4895 at 16.

[104] Preliminary Determination, USITC Pub. 4895 at 17.

[105] Preliminary Determination, USITC Pub. 4895 at 15.

[106] Preliminary Determination, USITC Pub. 4895 at 17.

[107] Preliminary Determination, USITC Pub. 4895 at 17. In their comments on draft questionnaires, neither Petitioners nor SMMI addressed how the Commission could improve pricing product comparisons. *See* Letter from Thomas J. Trendl to Lisa R. Barton (Aug. 9, 2019), EDIS Doc. No. 684959; Letter from Douglas J. Heffner to Lisa R. Barton (Aug. 9, 2019), EDIS Doc. No. 684883.

In the final phase of this investigation, the Commission collected quarterly pricing data from U.S. producers and importers on the same four SSA pricing products[108] on both an f.o.b.[109] and delivered basis.[110] Prices were collected separately for sales to distributors and sales to end users.[111] The parties do not agree on whether the Commission should utilize the f.o.b. or delivered dataset.[112] Each dataset presents a unique view of competition given that transportation costs can account for a substantial percentage of the total cost of purchasing SSA, the use of both f.o.b. and delivered prices by both U.S. producers and SMMI, disparities between SMMI and U.S. producers in the relative distances their product is shipped, and the somewhat limited overlap of purchasers of subject imports and the domestic like product. Therefore, rather than rely primarily on one individual dataset, we have considered both datasets in our analysis of underselling and price effects.

Seven U.S. producers and SMMI provided usable f.o.b. pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[113] Pricing data reported by these firms accounted for approximately 99.8 percent of U.S.

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[108] The pricing products are as follows: Product 1 is SSA in bulk, hopper cars (approximately 100 short tons); Product 2 is SSA in bulk, trucks (approximately 25 short tons); Product 3 is SSA in 2,000-pound supersacs; and Product 4 is SSA in 50-pound bags. CR/PR at V-6.

[109] U.S. producers were asked to report f.o.b. value as either the value from the final warehouse from which they sell the product, or the value at the factory gate, if they do not sell from a warehouse. CR/PR at V-6 n.12. SMMI was asked to provide the f.o.b. value at the U.S. border. *Id.*

[110] CR/PR at V-6. Given the unique status of Giles and Saltex in this industry, the Commission also collected their f.o.b. and delivered pricing data, reflecting the prices at which they marketed and/or sold SSA from U.S. producers of synthetic SSA. See *id.* at Appendix E.

[111] CR/PR at V-6.

[112] Petitioners argue that the Commission should utilize delivered prices, contending that these are customarily used for price negotiations in the U.S. SSA market. Specifically, they submit that delivered prices reflect the way that SSA is "marketed, negotiated and sold" to purchasers in the U.S. market. Petitioners' Prehearing Brief at 7-8; Petitioner's Posthearing Brief at 2-3. Respondents argue that the Commission should utilize f.o.b. prices, rather than the delivered price data, because the high freight costs relative to the value of SSA and differences in distances between suppliers and purchasers distort delivered price comparisons. Specifically, they contend that delivered data distorts the objective of an underselling analysis, "which is to determine the price effects of unfairly traded imports, not to investigate the dumping of inland freight." SMMI's Prehearing Brief at 37; SMMI's Posthearing Brief at 3; Government of Canada's Prehearing Brief at 15, 18-23; Government of Canada's Posthearing Brief at 2.

[113] CR/PR at V-7. As previously discussed, U.S. producers and SMMI reported selling both on a delivered and an f.o.b. basis. *See id.* at V-3; SMMI's Answers to Second Round of Commissioner Questions at 24. As such, the f.o.b. dataset includes sales made on a delivered basis and, for those sales, reported f.o.b. prices are constructed prices that subtract transportation and logistics costs to arrive at an f.o.b. price.

producers' U.S. shipments of SSA and 100 percent of U.S. shipments of subject imports from Canada in 2018.[114] On an f.o.b. basis, subject imports consisting of *** short tons undersold the domestic like product in 26 of 117 quarterly comparisons, at margins ranging from *** percent to *** percent.[115] Subject imports consisting of *** short tons oversold the domestic like product in 91 of 117 quarterly comparisons, at margins ranging from *** percent to *** percent.[116] Consequently, this pricing series shows pervasive overselling by subject imports.[117]

Three U.S. producers and SMMI provided usable delivered pricing data for sales of the requested products.[118] Pricing data reported by these firms accounted for 66.5 percent of U.S. producers' shipments and 100 percent of U.S. shipments of subject imports from Canada in 2018.[119] On a delivered basis, subject imports consisting of *** short tons undersold the domestic like product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent.[120] Subject imports consisting of *** short tons oversold the domestic like

[114] CR/PR at V-7. Petitioners contest the reliability of SMMI's reported f.o.b. pricing data and contend that they may include significant U.S.-inland freight expenses. *See* Petitioners' Prehearing Brief at 29-33. However, SMMI explained how it removed U.S.-inland freight expenses from its reported f.o.b. prices and explained why its reported f.o.b. prices differ from the landed duty-paid values it reported to U.S. Customs. *See* SMMI's Posthearing Brief at 8; SMMI's Answers to Second Round of Commissioner Questions at 22. There is no indication on the record of this investigation that SMMI did not follow the questionnaire instructions and instructions from staff. We consequently did not exclude SMMI's f.o.b. data, as reported in its questionnaire response.

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

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

[117] The f.o.b. dataset includes sales by U.S. producers Eco-Bat, East Penn, Evonik, and Geo who sold their product to or through Giles and Saltex. As discussed further below, we also consider the delivered dataset, which does not cover these producers' sales to Giles and Saltex, as well as the f.o.b. and delivered pricing data provided by Giles and Saltex.

[118] CR/PR at D-3. As noted above, U.S. producers and SMMI reported selling both on a delivered and an f.o.b. basis. *See id.* at V-3; SMMI's Answers to Second Round of Commissioner Questions at 24. As such, the delivered dataset includes sales made on an f.o.b. basis and, for those sales, reported delivered prices are constructed prices that add transportation and logistics costs to arrive at a delivered price.

[119] CR/PR at D-3. U.S. producers ***. *See id.* at V-6 n.13. This resulted in fewer U.S. producer sales being reported for the delivered pricing data than for the f.o.b. pricing data.

[120] CR/PR at Table D-10.

product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent. Thus, this pricing series also shows predominant overselling by subject imports.[121] [122]

[121] CR/PR at Table D-10. The parties disagree about whether Giles and Saltex act as distributors and thus their pricing data should not be included as it represents a different level of trade or whether Giles and Saltex act as the "marketing arm" of the U.S. byproduct producers and thus does not purchase from producers but makes the sale on behalf of its producers. *See* Petitioners' Answers to Second Round of Commissioner Questions at 54; Respondents' Answers to Second Round of Commissioner Questions at 36-37. Without deciding this issue, we also considered the f.o.b. and delivered pricing data provided by Giles and Saltex and find that they do not differ significantly from the f.o.b. and delivered datasets described above. When the f.o.b. and delivered pricing data reported by Giles and Saltex are substituted for the f.o.b. pricing data from the producers that sold to or through Giles and Saltex, U.S. pricing coverage is *** percent. CR/PR at E-3.

On an f.o.b. basis with Giles and Saltex's pricing data, subject imports consisting of *** short tons undersold the domestic like product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent. Subject imports consisting of *** short tons oversold the domestic like product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent. *Id.* at Table E-10.

On a delivered basis with Giles and Saltex's pricing data, subject imports consisting of *** short tons undersold the domestic like product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent. Subject imports consisting of *** short tons oversold the domestic like product in *** of *** quarterly comparisons, at margins ranging from *** percent to *** percent. *Id.* at Table E-20.

[122] Commissioner Kearns accords greater weight to the delivered pricing data in this case than do his colleagues, while also fully considering the f.o.b. pricing dataset. As a threshold matter, he is persuaded by the argument that Giles and Saltex act as sales agents or as the "marketing arm" for the domestic producers, rather than as distributors, and does not deem the transactions between Giles and Saltex and the byproduct producers to constitute sales to an unrelated customer. Further, he reiterates the following evidence on the record: (1) U.S. inland transportation costs are significant relative to the cost of SSA, reportedly ranging from *** for domestic producers and *** for the only importer, CR/PR at V-1; (2) three of the seven responding domestic producers, ***, and *** reported that they typically arrange transportation to their customers, while the remaining four domestic byproduct producers sold 100 percent of their SSA to Giles and Saltex, with agreements to market, sell, and ship their product, *id*; (3) the only responding importer reported pricing data on a delivered basis and any subject f.o.b. price comparisons had to be constructed, CR/PR at V-3, V-25; and (4) in addition to evidence suggesting quotes of f.o.b. pricing by domestic producers, the record also indicates the prevalence of price quotes on a delivered basis, *see*, *e.g.,* *** U.S. Producer Questionnaire Response at IV-5 (***); *see also* Petitioners' Answers to First Round of Commissioner Questions, Testimony of Joseph Kane (President of CNR and Representative of Giles and Saltex) at 7 ("Virtually all of our contracts state pricing on a delivered basis"). Largely due to these considerations, Commissioner Kearns relies more on the delivered pricing data in Appendix E that includes sales by Giles and Saltex on behalf of the byproduct producers. Nevertheless, he notes that the conclusions do not materially differ if one relies on the f.o.b. or the delivered pricing data.

We are not persuaded by Petitioners' argument that our underselling analysis should focus principally on delivered prices of Product 1 to end users.[123] Even assuming *arguendo* that we principally focus on delivered prices, we would not limit our analysis to the data for Product 1 to end users. While we acknowledge that the delivered pricing data show that the largest shipment quantity for any domestically produced product/channel combination was for Product 1 to end users,[124] there were also substantial shipments of domestic product in other product/channel combinations, such as Product 2 to end users.[125] Furthermore, most subject import volume was sold as Product 2 to end users, which oversold the domestic product in all volume and quarterly comparisons on both an f.o.b. and delivered basis.[126] Overall, pricing product/channel combinations other than Product 1 to end users represented a substantial share of both the domestic and subject import delivered pricing data.[127] Thus, in this case, we

[123] *See* Petitioners' Prehearing Brief at 22-23; Petitioners' Posthearing Brief at 7-9. Petitioners contend that the Commission should focus on Product 1 shipments in bulk/hopper cars to end users because: (1) they are the only shipments in the U.S. market that involve a single mode of transportation and do not incur additional expenses such as transloading or bagging in the United States; (2) a large majority of Product 1 volume is shipped to the same customers, thus diminishing any issues of customer mix, and consists of sales to the largest and most price-sensitive customers; (3) they represent the pricing product that most reflects the value of SSA, as opposed to logistics or packaging; and (4) they demonstrate pricing trends most consistent with a commodity product sold on the basis of price. *Id.* We note that Petitioners requested in their petition that the Commission collect pricing data for four pricing products and, in their comments on draft questionnaires in the final phase of this investigation, Petitioners did not address how the Commission could improve its pricing product comparisons. *See* Petition at 17; Letter from Thomas J. Trendl to Lisa R. Barton (Aug. 9, 2019), EDIS Doc. No. 684959.

[124] *Compare* CR/PR at Table D-2 and Tables D-1, D-3 to D-8.

[125] *Compare* CR/PR at Tables D-2 and D-4. The volume of domestically produced Product 1 sold to end users was *** short tons compared to *** short tons of domestically produced Product 2 sold to end users. *Id.*

[126] *See* CR/PR at Tables V-6 and D-4. Subject import volume for Product 2 to end users was *** short tons, compared to *** short tons of subject imports for Product 1 to end users. *Id.* Moreover, SMMI's ***, purchased Product 2 in bulk/trucks. *See* SMMI's U.S. Importer Questionnaire Response at III-22 *** accounted for *** percent of SMMI's sales in 2018); SMMI's Hearing Testimony and Exhibits, Testimony of Patricia A. Weigel (Commodity Manager of Nippon) at 1 ("SMMI ships its sodium sulfate by bulk railcar to a transload facility in Vancouver, Washington, where it is transloaded into a truck with daily loads delivered to {Nippon}"). *** has also stated that ***. *** U.S. Purchaser Questionnaire Response at III-14 and III-31.

[127] Overall, with respect to the delivered dataset, for pricing product/channel combinations other than Product 1 to end users, there was a total of *** short tons of domestically produced product sold in other pricing product/channel combinations, representing *** percent of the domestic product quantity in the delivered pricing data; and a total of *** short tons of subject import product sold in other pricing product/channel combinations, representing *** percent of the subject import quantity in the delivered pricing data. *Derived from* CR/PR at Tables D-1 through D-8.

decline Petitioners' request to focus our underselling analysis principally on delivered prices of Product 1 to end users.[128] Moreover, we have other data on the record that support the opposite conclusion; pricing data for Product 1 to end users on an f.o.b. basis show universal overselling by the subject imports.[129]

We further note that average unit values ("AUVs") for subject imports were higher than those for the domestic industry throughout the POI.[130] This additional evidence on the record corroborates the pricing data and shows that the subject imports generally were not priced lower than the domestic like product.

We also examined information collected in purchaser questionnaire responses pertinent to lost sales and lost revenues. Of 30 responding purchasers, 21 reported that, since, 2016, they had purchased SSA imported from Canada instead of domestic product.[131] Only five of these purchasers reported that subject import prices were lower than prices for domestically produced product, and only three of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than domestic product.[132] These three purchasers estimated purchasing *** short tons of SSA from Canada instead of the domestic

[128] Commissioner Kearns notes that where a pricing product is critical to the overall market (*e.g.*, it constitutes a large proportion of total market sales for the domestic industry or otherwise is critical to the health of the domestic industry), the record data clearly demonstrates significant underselling of that product, and clearly results in adverse price effects, a determination of material injury by reason of subject imports may follow, regardless of whether there was predominant overselling with respect to the other pricing products. But that is not the case here. Most importantly, an assessment of all record data in this case belies the conclusion that subject imports significantly undersold Product 1 to end users.

[129] CR/PR at Table V-4.

[130] *Compare* CR/PR at Tables III-7 and IV-2. The domestic industry's U.S. shipment AUVs were $101 per short ton in 2016, $96 per short ton in 2017, $89 per short ton in 2018, $90 per short ton in interim 2018, and $94 per short ton in interim 2019. *Id.* at Table III-7. Subject import AUVs were $120 per short ton in 2016, $108 per short ton in 2017, $104 per short ton in 2018, $104 per short ton in interim 2018, and $111 per short ton in interim 2019. *Id.* at Table IV-2. These data were requested on an f.o.b. basis but we recognize that the importers' questionnaire did not specify that the importer's point of shipment was at the U.S. border, so the above AUV data may reflect shipments from SMMI's U.S. warehouses and thus may not be fully comparable to U.S. producers' AUV data, which should not include any U.S. transportation costs. The U.S. shipment AUVs include unit revenue of synthetic byproduct producers, which sold their SSA to or through Giles and Saltex. *See id.* at II-2.

[131] CR/PR at Table V-14; *** U.S. Purchasers' Questionnaire Response at III-31(a).

[132] CR/PR at Table V-14; *** U.S. Purchasers' Questionnaire Response at III-31(b)(c). Additionally, with respect to price, only two purchasers reported that the domestic product is inferior (*i.e.,* higher priced) to the price of the subject imports, while seven purchasers reported that the two products are comparable and ten reported that the domestic product is superior (*i.e.*, lower priced). CR/PR at Table II-9; *** U.S. Purchasers' Questionnaire Response at IV-3.

product.[133] The one purchaser, ***, which accounted for the vast majority of the lost sales due to lower subject import prices (*** short tons) reported that both price and other factors influenced its purchases of subject imports.[134] Accordingly, the lost sales and lost revenue record evidence, particularly the questionnaire responses providing that only five of the responding 30 purchasers reported that subject import prices were lower-priced than domestic product, does not support a finding that lower prices caused subject imports to gain significant sales at the expense of the domestic industry.

In sum, after examining the various data sources on the record as a whole – including both f.o.b. and delivered pricing data, AUV data, and purchaser questionnaire responses regarding lost sales and lost revenue and the extent to which competition is based on price[135] – we conclude that the record does not support a finding that there has been significant price underselling by subject imports as compared with the price of domestic like product.

The record also does not support a finding that subject imports depressed prices for the domestic like product or prevented price increases that would otherwise have occurred to a significant degree. As noted above, the record shows predominant overselling by subject imports and subject import AUVs that are higher than domestic product. In addition, although the prices for some domestically produced product/channel combinations declined over the POI,[136] and the domestic industry's U.S. shipment AUVs decreased from 2016 to 2018,[137] there is an overall lack of correlation between the price movements of subject imports and the

[133] CR/PR at Table V-14; *** U.S. Purchasers' Questionnaire Response at III-31(c). The lost sales quantity of *** short tons represents only *** percent of total apparent U.S. consumption over the POI. *Derived from* CR/PR at Tables IV-4 and V-14; *** U.S. Purchasers' Questionnaire Response at III-31(c).

[134] In the preliminary phase of this investigation, ***, a purchaser located in ***, reported that ***. *** Lost Sales and Lost Revenue Survey Response at 4(c), EDIS Doc No. 673152. Moreover, documentation provided by Petitioners describes ***. *See* Petitioners' Posthearing Brief at Exhibit 8; *** U.S. Purchasers' Questionnaire Response at I-1a.

[135] As noted above, ten of 19 responding purchasers reported that U.S. product was superior on price (*i.e.*, lower priced) when compared to SSA produced in Canada. CR/PR at Table II-9; *** U.S. Purchasers' Questionnaire Response at IV-3.

[136] *See* CR/PR at Tables V-11 and D-9.

[137] *See* CR/PR at Table III-7. Petitioners argue that, because subject import AUVS declined by 13.4 percent from 2016 to 2018, while the domestic industry's U.S. shipment AUVs declined by only 11.5 percent, during a period of relatively stable demand, this is evidence that subject imports depressed prices for the domestic like product. *See* Petitioners' Prehearing Brief at 25. We place greater weight, however, on the pricing datasets, which provide a more refined analysis of how subject import prices and domestic like product prices are related to each other.

domestically produced product on both an f.o.b. and delivered basis.[138] The only product/channel combination where prices for domestic product and subject imports both decreased was Product 1 to end users on an f.o.b. and delivered basis.[139] However, on an f.o.b. basis, subject imports oversold the domestic product in all quarterly comparisons for Product 1 to end users.[140] Furthermore, as previously discussed, we decline to give concentrated weight to data for delivered prices of Product 1 to end users and, therefore, do not find that the price declines for this product/channel combination outweigh the lack of correlation between price movements seen in other product/channel combinations.

Moreover, of the 30 purchasers responding to lost sales and lost revenue allegations, only *** reported that U.S. producers had reduced prices in order to compete with lower-priced subject imports, while 14 reported that they had not reduced prices.[141] Although *** reported an estimated U.S. price reduction of *** percent, it also reported ***.[142]

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[138] *See* CR/PR at Tables V-11 and D-9. On an f.o.b. basis, while domestic producers' prices decreased for Product 1 sold to distributors and Product 4 to end users, the prices for subject imports increased for these product/channel combinations. *Id.* at Table V-11. Conversely, while prices for subject imports decreased for Product 2 sold to end users, Product 3 to distributors, and Product 4 to distributors, domestic producers' prices increased for these product/channel combinations. *Id.* There also does not appear to be any correlation between the domestic industry's price movements and any underselling by the subject imports. The domestic industry's price declines for Product 1 to distributors and Product 4 to end users occurred as the subject imports oversold in nearly all quarterly comparisons of those products. *Id.* at Tables V-3 and V-10.

On a delivered basis, while domestic producers' prices decreased for Product 2 sold to distributors and Product 4 to end users, the prices for subject imports increased for these product/channel combinations. *Id.* at Table D-9. Conversely, while prices for subject imports decreased for Product 2 sold to end users, Product 3 to distributors, Product 3 to end users, and Product 4 to distributors, domestic producers' prices increased for these product/channel combinations. *Id.* Again, the price declines mentioned for the domestic industry's products on a delivered basis for Product 2 to distributors and Product 4 to end users occurred as subject imports oversold the domestic products in nearly all quarterly comparisons. *Id.* at Tables D-3 and D-8.

[139] *See* CR/PR at Tables V-11 and D-9

[140] *See* CR/PR at Table V-4.

[141] CR/PR at Table V-15; *** U.S. Purchasers' Questionnaire Response at III-33. One of the three responding purchasers that reported that U.S. producers had reduced prices was ***. However, as indicated in the conditions of competition, Giles provided a purchaser questionnaire in the final phase of this investigation and reported that ***. Giles's Purchaser Questionnaire Response at I-1a.

In light of his finding that Giles and Saltex are sales agents or a "marketing arm" for the domestic producers, rather than distributors, Commissioner Kearns does not consider Giles and Saltex to be a purchaser in the U.S. SSA market. Therefore, he notes that of the 29 purchasers responding to lost sales and lost revenue allegations, only *** reported that U.S. producers had reduced prices in order to compete with lower-priced subject imports. *See supra* n.122.

[142] CR/PR at Table V-15.

We are not persuaded by the examples provided by Petitioners of instances where CNR and/or Giles and Saltex allegedly were forced to discount their prices due to competition from subject imports.[143] We initially observe that some of the same purchasers cited in Petitioners' examples (***) indicated in their purchaser questionnaire responses that they purchased subject imports instead of domestic product, but the subject imports were not lower priced.[144] Furthermore, only some of the documentation provided by Petitioners is contemporaneous.[145] While some contemporaneous documentation show that price was an important factor in one purchaser's (***) decision to source SSA from a competitor instead of Saltex, no documentation on the record exists that SMMI was in fact the low-priced competitor and *** indicated in its purchaser questionnaire response that it sources nonsubject imports.[146] Other contemporaneous documentation shows only that the purchaser *** was offered a lower price by *** after it concluded contract negotiations with *** but it continued to honor its contract with ***.[147] Thus, notwithstanding the documentation provided by Petitioners, the record as a whole does not support Petitioners' allegations that domestic producers lost revenue because of competition from lower-priced subject imports.

While the COGS to net sales ratio of the three producers that characterized SSA as a primary or co-product in their production process (natural producers CNR and SVM and synthetic producer Elementis) was high and increasing from 2016 to 2018,[148] much of the net sales element of this ratio is reflective of CNR and SVM's export shipments with AUVs much lower than both their U.S. shipment AUVs and unit COGS.[149] In addition, CNR and SVM's AUVs

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[143] *See* Petitioners' Answers to Second Round of Commissioner Questions at 19-20 and Exhibits 6-11.

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

[145] *See* Petitioners' Answers to Second Round of Commissioner Questions at Exhibits 7, 9, and 10.

[146] *See* Petitioners' Answers to Second Round of Commissioner Questions at Exhibits 7; *** U.S. Purchasers' Questionnaire Response at II-1.

[147] *See* Petitioners' Answers to Second Round of Commissioner Questions at Exhibit 9. *** also reported in its purchaser questionnaire response a lower estimated price reduction by U.S. producers than that alleged by Petitioners. *See* CR/PR at V-15.

[148] *See* CR/PR at Table VI-1. CNR, SVM, and Elementis's combined COGS to net sales ratio was 103.9 percent in 2016, 117.6 percent in 2017, and 125.3 percent in 2018. *Id.* It was lower in interim 2019 at 113.3 percent than in interim 2018 at 121.4 percent. *Id.*

[149] *See* CR/PR at Tables III-8, VI-4. As previously discussed, natural SSA producers CNR and SVM exported *** of their total shipments. *Id.* at Table III-8. Their combined export shipment AUVs were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018, $*** per short ton in interim 2018, and $*** per short ton in interim 2019. *Id.* Their combined U.S. shipment AUVs were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018, $*** per short ton in

for export shipments declined *** percentage than their AUVs for U.S. shipments from 2016 to 2018.[150] Finally, we observe that while combined unit COGS for CNR, SVM, and Elementis fluctuated but increased somewhat from 2016 to 2018, raw material costs, for which increases are most likely to be passed through to customers, made up a very small share of their combined unit COGS.[151] Hence, although there was a modest increase in demand, the record does not indicate that domestic producers would have been able to raise prices during this period to cover costs, if not for the presence of subject imports.

In sum, the record does not support a finding that subject imports significantly undersold the domestic like product. It also does not support a finding that the effect of subject imports was to depress prices to a significant degree or prevent price increases, which otherwise would have occurred, to a significant degree. Accordingly, we do not find that subject imports had significant adverse price effects on the domestic industry.

E. Impact of the Subject Imports[152]

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[153] These factors include output, sales, inventories, capacity

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interim 2018, and $*** per short ton in interim 2019. *Id.* Their combined unit COGS were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018, $*** per short ton in interim 2018, and $*** per short ton in interim 2019. *Id.* at Table VI-4.

[150] CNR and SVM's AUVs for export shipments declined by *** percent compared to AUVs for U.S. shipments which declined by *** percent from 2016 to 2018. *Derived from* CR/PR at Table III-8.

[151] *See* CR/PR at Table VI-1. Unit COGS were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018. *Id.* Unit raw material costs were $*** per short ton in 2016, $*** per short ton in 2017, and $*** per short ton in 2018. *Id.*

[152] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination, Commerce found a dumping margin of 8.89 percent for both SMMI and all others. Commerce Final Determination, 85 Fed. Reg. at 17535. We take into account in our analysis the fact that Commerce has made a final finding that all subject producers in Canada are selling subject imports in the United States at less than fair value. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the lack of significant price effects of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

[153] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also

utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[154]

U.S. demand for SSA increased modestly during the POI, increasing by 2.9 percent from 2016 to 2018.[155] It was 1.1 percent higher in interim 2019 than in interim 2018.[156]

Nevertheless, the domestic industry's output-related indicators generally decreased from 2016 to 2018, notwithstanding some increases from 2016 to 2017, and were lower in interim 2019 than in interim 2018. The domestic industry's capacity remained constant throughout the POI.[157] Its total production fluctuated but decreased by 1.2 percent from 2016 to 2018, and was 11.3 percent lower in interim 2019 than in interim 2018.[158] Its capacity utilization fluctuated but decreased by 1.1 percentage points from 2016 to 2018, and was 10.0 percentage points lower in interim 2019 than in interim 2018.[159] Its total U.S. shipments decreased by 2.1 percent from 2016 to 2018, and were 6.2 percent lower in interim 2019 than in interim 2018.[160] Its market share decreased by 4.2 percentage points from 2016 to 2018, and was 6.0 percentage points lower in interim 2019 than in interim 2018.[161] Its inventories

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may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[154] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[155] CR/PR at Tables IV-4 and C-1.

[156] CR/PR at Tables IV-4 and C-1.

[157] The domestic industry's capacity was 594,182 short tons in 2016, 2017, and 2018, and 445,637 short tons in interim 2018 and interim 2019. *Id.* at Table III-4.

[158] CR/PR at Table C-1. The domestic industry's production was 529,858 short tons in 2016, 542,506 short tons in 2017, 523,588 short tons in 2018, 395,824 short tons in interim 2018, and 351,186 short tons in interim 2019. *Id.* at Table III-4.

[159] CR/PR at Table C-1. The domestic industry's capacity utilization was 89.2 percent in 2016, 91.3 percent in 2017, 88.1 percent in 2018, 88.8 percent in interim 2018, and 78.8 percent in interim 2019. *Id.* at Table III-4.

[160] CR/PR at Table C-1. The domestic industry's total U.S. shipments were 316,552 short tons in 2016, 315,374 short tons in 2017, 309,939 short tons in 2018, 229,079 short tons in interim 2018, and 214,985 short tons in interim 2019. *Id.* at Table III-7.

[161] CR/PR at Table C-1. The domestic industry's market share was 86.8 percent in 2016, 83.6 percent in 2017, 82.6 percent in 2018, 83.1 percent in interim 2018, and 77.2 percent in interim 2019. *Id.* at Table IV-4.

fluctuated but increased by *** percent from 2016 to 2018, and were *** percent lower in interim 2019 than in interim 2018.[162] [163]

Trends in the domestic industry's employment factors were mixed. The number of production and related workers ("PRWs") fluctuated within a narrow range throughout the POI.[164] Total hours worked decreased by 3.0 percent from 2016 to 2018, but were 4.7 percent higher in interim 2019 than in interim 2018.[165] Total wages paid fluctuated but increased by 1.0 percent from 2016 to 2018, and were 11.5 percent higher in interim 2019 than in interim 2018.[166] Hourly wages increased by 4.2 percent from 2016 to 2018, and were 6.5 percent higher in interim 2019 than in interim 2018.[167] Productivity was stable from 2016 to 2018, but was 15.2 percent lower in interim 2019 than in interim 2018.[168]

The financial indicators of natural producers CNR and SVM and synthetic producer Elementis – the three producers that characterized SSA as a primary or co-product in their production process – generally declined from 2016 to 2018, but improved in interim 2019

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[162] CR/PR at Table C-1. The domestic industry's end-of-period inventories were *** short tons in 2016, *** short tons in 2017, *** short tons in 2018, *** short tons in interim 2018, and *** short tons in interim 2019. *Id.* at Table III-10.

[163] The trends concerning output-related indicators diverged for the different types of producers. Notwithstanding the declines that the industry as a whole experienced, synthetic producers' production, capacity utilization, and shipments increased during the full years of the POI. Their total production increased by *** percent from 2016 to 2018, but was *** percent lower in interim 2019 than in interim 2018. CR/PR at Tables III-6, C-3. Their capacity utilization increased by *** percentage points from 2016 to 2018, but was *** percentage points lower in interim 2019 than in interim 2018. *Id.* Their total U.S. shipments increased by *** percent from 2016 to 2018, but was *** percent lower in interim 2019 than in interim 2018. *Id.* at Tables III-9, C-3. Their inventories fluctuated but decreased overall by *** percent from 2016 to 2018, and were *** percent lower in interim 2019 than in interim 2018. *Id.* at Tables III-12, C-3. Additionally, synthetic producers made up an increasing majority of the domestic industry's total U.S. shipments throughout this period. *Compare* CR/PR at Tables III-8 and Table III-9.

[164] PRWs were 131 in 2016 and 2017, 132 in 2018, 130 in interim 2018, and 132 in interim 2019. CR/PR at Table III-13.

[165] CR/PR at Table C-1. Total hours worked were 300,000 hours in 2016, 296,000 hours in 2017, 291,000 hours in 2018, 221,000 hours in interim 2018, and 232,000 hours in interim 2019. *Id.* at Table III-13.

[166] CR/PR at Table C-1. Wages paid were $10.5 million in 2016, $10.6 million in 2017 and 2018, $8.0 million in interim 2018, and $9.0 million in interim 2019. *Id.* at Table III-13.

[167] CR/PR at Table C-1. Hourly wages were $34.84 per hour in 2016, $35.78 per hour in 2017, $36.29 per hour in 2018, $36.29 per hour in interim 2018, and $38.66 per hour in interim 2019. *Id.* at Table III-13.

[168] Productivity per hour was 1.8 short tons in 2016, 2017, 2018 and interim 2018, and 1.5 short tons in interim 2019. CR/PR at Table III-13. Lower productivity in interim 2019 was largely due to the decrease in production by SVM in interim 2019, which ***. *Id.* at III-2, Tables III-3, III-4.

compared to interim 2018. Their combined total net sales revenues decreased by 15.2 percent from 2016 to 2018, but were 4.8 percent higher in interim 2019 than in interim 2018.[169] Their combined gross profits,[170] operating income,[171] net income,[172] and ratio of operating income to net sales[173] all decreased each year from 2016 to 2018, but were higher in interim 2019 than in interim 2018. Their total net assets increased from $*** in 2016 to $*** in 2017 and $*** in 2018.[174]

The financial indicators of synthetic producers East Penn, Eco-Bat, Evonik, and GEO – which all characterized SSA as a byproduct in their production process – generally decreased from 2016 to 2018, and were lower in interim 2019 than interim 2018. Their combined total byproduct revenues fluctuated but decreased by *** percent from 2016 to 2018, and were *** percent lower in interim 2019 than in interim 2018.[175] Similarly, their combined net byproduct revenues fluctuated but decreased by *** percent from 2016 to 2018, and were *** percent lower in interim 2019 than in interim 2018.[176] The domestic industry's total capital expenditures (for primary/co-product producers and byproduct producers combined) increased by *** percent from 2016 to 2018, but were *** percent lower in interim 2019 than in interim 2018.[177]

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[169] CR/PR at C-1. CNR, SVM, and Elementis's combined total net sales revenues were $34.3 million in 2016, $29.3 million in 2017, $29.1 million in 2018, $22.2 million in interim 2018, and $23.3 million in interim 2019. *Id.* at Table VI-1.

[170] CNR, SVM, and Elementis's combined gross profits were a loss of $1.3 million in 2016, a loss of $5.2 million in 2017, a loss of $7.4 million in 2018, a loss of $4.8 million in interim 2018, and a loss of $3.1 million in interim 2019. CR/PR at Table VI-1.

[171] CNR, SVM, and Elementis's combined operating income was a loss of $3.6 million in 2016, a loss of $7.4 million in 2017, a loss of $9.7 million in 2018, a loss of $6.5 million in interim 2018, and a loss of $5.1 million in interim 2019. CR/PR at Table VI-1.

[172] CNR, SVM, and Elementis's combined net income was a loss of $3.6 million in 2016, a loss of $7.5 million in 2017, a loss of $9.6 million in 2018, a loss of $6.6 million in interim 2018, and a loss of $4.6 million in interim 2019. CR/PR at Table VI-1.

[173] CNR, SVM, and Elementis's combined ratio of operating income to net sales was negative 10.6 percent in 2016, negative 25.4 percent in 2017, negative 33.3 percent in 2018, negative 29.5 percent in interim 2018, and negative 21.9 percent in interim 2019. CR/PR at Table VI-1.

[174] CR/PR at Table VI-9.

[175] CR/PR at Table C-3. East Penn, Eco-Bat, Evonik, and GEO's combined total byproduct revenues were $*** in 2016, $*** in 2017, $*** in 2018, $*** in interim 2018, and $*** in interim 2019. *Id.* at Table VI-5.

[176] CR/PR at Table C-3. East Penn, Eco-Bat, Evonik, and GEO's combined net byproduct revenues were $*** in 2016, $*** in 2017, $*** in 2018, $*** in interim 2018, and $*** in interim 2019. *Id.* at Table VI-5.

[177] CR/PR at Table C-1. The domestic industry's capital expenditures were $*** in 2016, $*** in 2017, $*** in 2018, $*** in interim 2018, and $*** in interim 2019. *Id.* at Table VI-8. Synthetic

The record does not show a causal nexus between price-based competition from subject imports and the declines in the domestic industry's output-related and financial indicators. In particular, the record does not indicate that the domestic industry's market share losses, or reduced output, were caused by the pricing of subject imports. Nearly all of the domestic industry's loss of market share to subject imports occurred at two intervals – from 2016 to 2017 and between interim 2018 and interim 2019.[178] The record indicates that the loss in market share in 2017 was due entirely to SMMI switching from purchasing domestically produced SSA from SVM, due to weather-related production disruptions at its Canadian facility, to importing its own Canadian-produced SSA.[179] The record further indicates that the SVM sales to SMMI were discontinued for reasons other than price. In fact, SMMI reported that the prices that SVM charged were *** lower than that which SMMI charged its own customers on resale,[180] and that SMMI and SVM could not come to terms on a supply agreement in 2017 because SMMI ***.[181] SVM reported that ***.[182]

Likewise, the domestic industry's reduced market share in interim 2019 compared to interim 2018 was predominantly due to one customer's (***) purchase of SSA from SMMI instead of SVM.[183] There is no evidence on the record that *** declined to purchase SSA from SVM in interim 2019 because of a competing lower priced offer from SMMI. According to

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producer *** incurred $*** in research and development expense in 2018, the only such expense reported by any domestic producer. *Id.* Four of the seven responding U.S. producers reported no negative effects on investment as a result of subject imports, and six reported no negative effects on growth and development. *Id.* at Table VI-10.

[178] By contrast, subject imports gained only 0.4 percentage points of market share from 2017 to 2018. CR/PR at Table IV-4.

[179] *See* CR/PR at Table VII-2. SMMI reported that, in 2016, its U.S. shipments of SSA that it produced in Canada were only 38,125 short tons in 2016, while its U.S. shipments of SSA produced by SVM were 31,476 short tons. *Id.* In 2017, however, SMMI's U.S. shipments of SSA that it produced in Canada were 50,647 short tons, while its U.S. shipments of SSA produced by SVM was zero. *Id.* In contrast, the 3.2 percentage points of market share that the domestic industry lost from 2016 to 2017 is equivalent to 12,166 short tons of 2017 apparent U.S. consumption, which is less than the 31,476 short ton reduction in SMMI's U.S. shipments of SSA produced by SVM from 2016 to 2017. *See id.* at Table IV-4.

[180] *See* CR/PR at Table VII-2. SMMI reported that ***. *Id.*

[181] *See* SMMI's Answers to Second Round of Commissioner Questions at 57.

[182] *See* Petitioners' Answers to Second Round of Commissioner Questions at 52.

[183] SMMI reported that its U.S. shipments of SSA to *** were *** short tons in interim 2018 and *** short tons in interim 2019, or *** short tons higher in interim 2019 than in interim 2018. SMMI's Answers to First Round of Commissioner Questions at 18. In contrast, the 6.0 percentage points of market share that the domestic industry lost between interim 2018 and interim 2019 is equivalent to 16,602 short tons of interim 2019 apparent U.S. consumption, which is ***. *See* CR/PR at Table IV-4.

contemporaneous documentation provided by Petitioners, SMMI, and ***, SVM provided *** with a final price quotation for its 2019 supply to its *** facility on October 16, 2018.[184] On October 17, 2018, *** awarded SVM a contract at SVM's quoted price but for less volume than SVM proposed.[185] On November 20, 2018, SVM explained to *** (summarizing a call between the two companies the week prior) that neither the price nor the quantity offered by *** were sufficient to offset the cost to campaign to meet *** specification and proposed to supply *** with SVM's standard specification at more than twice the volume *** awarded SVM.[186] SVM set a target date of ***.[187] On December 7, 2018, after the target date had passed without a response from ***, SVM notified *** that it was withdrawing its offer to supply *** facility.[188] On December 10, 2018, *** contacted SMMI about its 2019 supply.[189] On December 18, 2018, SVM continued to insist that it could not honor its price quote at the volume requested by *** unless *** accepted SVM's standard specification.[190] On December 19, 2018, almost two weeks after SVM's withdrawal of its supply offer, SMMI provided *** with a price quote.[191] Furthermore, the price that SMMI quoted *** was slightly *** than that quoted by SVM.[192]

[184] *See* Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Items 15 and 16. We acknowledge that ***, but this does not appear to be due to price competition from SMMI, which, as discussed did not submit a proposal until December, after negotiations with SVM had broken down. *See id.* at Items 9 through 16.

[185] *See* Petitioners' Answers to the First Round of Commissioner Questions at Exhibit 2, Item 17; Petitioners' Answers to the Second Round of Commissioner Questions at 52-54.

[186] *See* Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Item 18. ***. *See id.;* Petitioner's Answers to the Second Round of Questions at 52-54.

[187] *See* Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Item 18.

[188] *See* Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Item 19.

[189] *See* SMMI's Answers to First Round of Commissioner Questions at 20, Exhibit 1. SMMI argues that *** "did not even contact SMMI until ***." *Id.* In fact, the record indicates that ***. Moreover, it was ***. Thus, there was no competing lower-priced offer from SMMI at the time of SVM's withdrawal or during the time that SVM was negotiating with ***. *See* SMMI's Answers to Second Round of Commissioner Questions at 32, Exhibit A.

[190] *See* Email from ***, SVM, to ***, *** (Dec. 18, 2018), EDIS Doc. No. 706119; Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Item 22.

[191] *See* SMMI's Answers to First Round of Commissioner Questions at 20, Exhibits 1 and 2.

[192] *See* SMMI's Answers to Second Round of Commissioner Questions at 54; SMMI's Answers to First Round of Commissioner Questions at Exhibit 2 (SMMI's price quotation was ***); Petitioners' Answers to First Round of Commissioner Questions at Exhibit 2, Item 16 (SVM's price quotation was ***).

Thus, the record does not show a causal nexus between price-based competition from subject imports and the domestic industry's market share declines.[193]

In addition, the poor financial performance of the three producers that produce SSA as either a primary product or co-product rather than a byproduct (CNR, SVM, and Elementis) was largely a result of the large share of CNR and SVM's sales that were export shipments.[194] CNR and SVM's export shipments fluctuated but increased from 2016 to 2018, and were lower in interim 2019 than in interim 2018.[195] Export shipments represented *** percent of CNR and SVM's combined total shipments in 2016 and increased to *** percent in 2018.[196] The AUVs of their export shipments were well below the AUVs of their U.S. shipments and well below (***) their unit COGS.[197] We acknowledge that, even excluding CNR and SVM's export sales, there was a downward trend in the domestic industry's financial performance. Nevertheless, a large proportion of the declines in financial performance for CNR, SVM and Elementis appears to be attributable to export shipments.[198] More importantly, we cannot conclude that this decline

[193] There were also three other purchasers (***, that indicated in their questionnaire responses that they increased their purchases of subject imports during the POI for non-price reasons. CR/PR at Tables V-13 and V-14.

[194] *See* CR/PR at VI-18 to VI-19.

[195] *See* CR/PR at Table III-8. CNR and SVM's export shipments were *** short tons in 2016, *** short tons in 2017, *** short tons in 2018, *** short tons in interim 2018, and *** short tons in interim 2019. *Id.*

[196] CR/PR at Table III-8.

[197] *Compare* CR/PR at Tables III-8 and VI-4; *supra* n.149.

[198] To illustrate, between 2016 and 2017, when subject imports gained the most market share, primary and co-product producers' combined operating income margin based only on U.S. shipments declined by 5.4 percentage points, while their operating margin based on their total shipments worsened by 14.8 percentage points. Staff estimated operating income to net sales ratios for the U.S. shipments of primary and co-product producers of 24.1 percent in 2016, 18.7 percent in 2017, 12.1 percent in 2018, 14.8 percent in interim 2018, and 16.1 percent in interim 2019. This compares to total operating income to total net sales ratios as set forth in Table VI-1 of the Confidential Report of negative 10.6 percent in 2016, negative 25.4 percent in 2017, negative 33.3 percent in 2018, negative 29.5 percent in interim 2018, and negative 21.9 percent in interim 2019). Total operating income for U.S. shipments (primary and co-product producers) was estimated by subtracting total COGS and SG&A expenses for U.S. shipments (primary and co-product producers) from total net sales revenue for U.S. shipments (primary and co-product producers). Total net sales revenue for U.S. shipments (primary and co-product producers) was determined by subtracting total export shipment value (CR/PR at Tables III-8 and Table III-9) from total consolidated net sales value (CR/PR at Table VI-1). Total COGS and SG&A expenses for U.S. shipments (primary and co-product producers) were estimated by subtracting total estimated company-specific export COGS and export SG&A expenses from total consolidated COGS and SG&A expenses (CR/PR at Table VI-1). Staff estimated total company-specific export COGS and export SG&A expenses using company-specific average unit COGS and SG&A expenses (CR/PR at Table VI-4)

was caused by subject imports in light of our prior findings that market share shifts were for non-price reasons and subject imports did not have significant price effects.

Moreover, the record indicates that a factor unrelated to subject imports, intra-industry competition from synthetic byproduct producers, may have played a role in any residual decline in the financial performance of CNR, SVM, and Elementis. As previously discussed, an increasing majority of the domestic industry's total U.S. shipments were from synthetic producers of SSA,[199] whose byproduct production of SSA is generally driven by the production and demand for their primary products.[200] While total byproduct sales quantity increased in line with apparent U.S. consumption by *** percent from 2016 to 2018,[201] average per short ton byproduct revenue was substantially lower than CNR, SVM, and Elementis's U.S. shipment AUVs and decreased throughout the POI.[202] Hence, record evidence suggests that intra-industry competition from synthetic byproduct producers, which had the lowest and decreasing average SSA revenue throughout the period, may have played a role in any residual decline in the financial performance of primary and co-product SSA producers.

Finally, we do not find persuasive Petitioners' argument that there is a correlation between subject import volume and the domestic industry's condition.[203] We first observe that the financial indicators of the three primary and co-product producers (CNR, SVM, and Elementis) were better in interim 2019 than in interim 2018, notwithstanding that subject import volume and market share were higher in interim 2019 than interim 2018, and net revenue of byproduct producers peaked in 2017, a year with appreciable increases in subject

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multiplied by company-specific export quantities (CNR and SVM's U.S. Producer Questionnaire Responses at II-7a and Elementis's U.S. Producer Questionnaire Response at II-8a).

[199] *Compare* CR/PR at Tables III-8 and III-9.

[200] CR/PR at III-3.

[201] CR/PR at Tables VI-5 and C-3. Total byproduct sales quantity was *** short tons in 2016, *** short tons in 2017, *** short tons in 2018, *** short tons in interim 2018, and *** short tons in interim 2019. *Id.* at VI-5.

[202] *Compare* CR/PR at Table III-8, Elementis's U.S. Producers' Questionnaire at II-8a, Table VI-5. CNR and SVM's U.S. shipment AUVs were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short to in 2018, $*** per short ton in interim 2018, and $*** per short ton in interim 2019. CR/PR at Table III-8. Elementis's U.S. shipment AUVs were $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018, $*** per short ton in interim 2018, and $*** per short ton in interim 2019. Elementis's U.S. Producers' Questionnaire at II-8a. Average byproduct revenue was $*** per short ton in 2016, $*** per short ton in 2017, $*** per short ton in 2018, $*** per short ton in interim 2018, and $*** per short ton in interim 2019. CR/PR at VI-5. We acknowledge that, because synthetic byproduct producers sell SSA to or through Giles and Saltex, average byproduct revenue may not be directly comparable to primary and co-product producers' U.S. shipment AUVs.

[203] *See* Petitioners' Prehearing Brief at 19, 42; Petitioners' Posthearing Brief at 7, 14.

import volume and market penetration.[204] Even assuming *arguendo* that there was a discernable correlation between subject import volume and the domestic industry's condition, we have not found a causal nexus between competition from subject imports and the declines in the domestic industry's output-related and financial indications.[205]

For the reasons stated above, we do not find that subject imports had a significant adverse impact on the domestic industry. Accordingly, we find that the domestic industry is not materially injured by reason of subject imports of SSA from Canada.

V. No Threat of Material Injury by Reason of Subject Imports

A. Legal Standard

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S. industry is threatened with material injury by reason of the subject imports by analyzing whether "further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted."[206] The Commission may not make such a determination "on the basis of mere conjecture or supposition," and considers the threat factors "as a whole" in making its determination whether dumped or subsidized imports are imminent and whether material injury by reason of subject imports would occur unless an order is issued.[207] In making our determination, we consider all statutory threat factors that are relevant to these investigations.[208]

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[204] *Compare* CR/PR at Tables IV-4, VI-1 and VI-7.

[205] We also note that, even though subject import volume was lower in 2016 than in subsequent years, SMMI was still quite active in the market, as it has indicated that its total U.S. shipments in 2016, including resale shipments from SVM, were higher than its total U.S. shipments in 2015. CR/PR at Table VII-2.

[206] 19 U.S.C. § 1677(7)(F)(ii).

[207] 19 U.S.C. § 1677(7)(F)(ii).

[208] These factors are as follows:

(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,

B. Analysis

1. Likely Volume

The record does not indicate that there is substantial existing unused capacity in the subject industry or that a substantial increase in production capacity is imminent. Capacity in the subject industry was *** short tons in 2018.[209] While capacity was higher in interim 2019 than in interim 2018, and was projected to increase in 2019, it was also projected to revert to its 2018 level by 2020.[210] Furthermore, the subject industry's capacity utilization rate was high at *** percent in 2018, and was *** percentage points higher in interim 2019 than in interim 2018.[211] It was projected to be even higher in 2019 and 2020.[212] In addition, SMMI reported that its capacity is limited by the amount of lake brine it can withdraw on an annual basis during its harvest season, which is dependent on weather conditions.[213] SMMI also reported that

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

(V) inventories of the subject merchandise,

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

…

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

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

19 U.S.C. § 1677(7)(F)(i). To organize our analysis, we discuss the applicable statutory threat factors using the same volume/price/impact framework that applies to our material injury analysis. Statutory threat factors (II), (III), (V), and (VI) are discussed in the analysis of subject import volume. Statutory threat factor (IV) is discussed in the analysis of subject import price effects. Statutory factors (VIII) and (IX) are discussed in the analysis of impact. Statutory factors (I) concerning countervailable subsidies and (VII) concerning agricultural products are inapplicable to this investigation.

[209] CR/PR at Table VII-3.

[210] CR/PR at Table VII-3. The subject industry's capacity was *** short tons in interim 2018 and *** short tons in interim 2019 and was projected to be *** short tons in 2019 and *** short tons in 2020. *Id.*

[211] CR/PR at Table VII-3. The subject industry's capacity utilization was *** percent in interim 2018 and *** percent in interim 2019. *Id.*

[212] CR/PR at Table VII-3. The subject industry's capacity utilization was projected to be *** percent in 2019 and *** percent in 2020. *Id.*

[213] CR/PR at VII-8.

there has been a slow decline in the average harvest volumes, which has limited its overall production capacity.[214] TODA, the Canadian producer of synthetic SSA, which accounted for only *** percent of total production in Canada,[215] reported that its production of SSA, as a byproduct, is constrained by ***.[216]

While the majority of the subject industry's total shipments in 2018 were exported to the United States,[217] its home market shipments have increased steadily from 2016 to 2018, were higher in interim 2019 than in interim 2018, and were projected to be higher than the 2018 level in 2019 and 2020.[218] SMMI reported that it acquired a new Canadian customer in 2018, which resulted in a significant increase in its home market shipments from 2017 to 2018, and that its projected growth in home market shipments is primarily due to the growth in sales to this Canadian customer.[219] Moreover, because the United States accounted for virtually all exports from Canada,[220] there are no third-country export markets from which Canadian producers can divert exports to the United States. Furthermore, there are no known antidumping or countervailing duty orders on SSA from Canada in other countries.[221] Consequently, the record does not support a finding that the subject producers have the incentive to direct substantially increased imports to the United States.

As discussed in our volume analysis above, we have found that the volume and increase in volume of subject imports were significant during the POI, both in absolute terms and relative to U.S. consumption. However, as discussed in our impact analysis, subject import volume and market share increases during the POI were not the result of price-based competition. There is no indication on the record of any likely change in conditions of competition that would make such price-based competition likely in the imminent future.

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[214] CR/PR at VII-8 to VII-9.

[215] CR/PR at Table VII-1.

[216] CR/PR at VII-9.

[217] CR/PR at Table VII-1. *** percent of the subject industry's total shipments in 2018 were exported to the United States. *Id.*

[218] CR/PR at Table VII-3. The subject industry's total home market shipments were *** short tons in 2016, *** short tons in 2017, *** short tons in 2018, *** short tons in interim 2018, and *** short tons in interim 2019, and were projected to be *** short tons in 2019 and *** short tons in 2020. *Id.*

[219] CR/PR at VII-6 to VII-7. By contrast, *** indicated that U.S. demand has fallen because of the shift from powdered laundry detergents to liquid detergents, which do not use SSA. *Id.* at II-6

[220] CR/PR at Table VII-4.

[221] CR/PR at VII-12.

Additionally, while SMMI reported arranged imports totaling *** short tons in January through September 2020, this is lower than the volume of subject imports in interim 2019.[222]

While importers' U.S. inventories of subject imports fluctuated but increased overall from 2016 to 2018, and were higher in interim 2019 than in interim 2018, the ratio of these inventories to U.S. imports of SSA from Canada and U.S. shipments of subject imports were low throughout the POI, and at a period low in interim 2019.[223] Furthermore, inventories in Canada were lower in interim 2019 than in interim 2018.[224]

Finally, there is no potential for product shifting as SMMI reported that it can only produce SSA on its equipment and machinery, and therefore cannot divert its production of other products to SSA.[225] On the contrary, SMMI reported that it is ***.[226]

In sum, given the subject industry's high capacity utilization rates and limitations on its capacity, its increasing home market shipments, the non-price related reasons for the increase in subject import volume and market share during the POI, modest inventory levels, and the lack of potential for product shifting, we do not find a likelihood of substantially increased subject import volume in the imminent future.

2. Likely Price Effects

In our price effects analysis above, we found that the subject imports did not significantly undersell the domestic like product during the POI and did not cause significant price depression or price suppression. Subject producers have little incentive to lower their prices to increase sales in the U.S. market given their ability during the POI to obtain U.S. sales despite offering generally higher prices than the domestic industry. Moreover, as discussed in the likely volume section above, there is no likelihood of a change in conditions of competition that would lead subject producers to change their pricing strategy in light of their high capacity

[222] *Compare* CR/PR at Tables IV-2 and VII-6.

[223] CR/PR at Table VII-5. U.S. inventories of subject imports were *** short tons in 2016, *** short tons in 2017, *** short tons in 2018, *** short tons in interim 2018, and *** short tons in interim 2019. *Id.* The ratio of U.S. inventories of subject imports to U.S. imports of SSA from Canada was *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019. *Id.* The ratio of U.S. inventories of subject imports to U.S. shipments of subject imports was *** percent in 2016, *** percent in 2017, *** percent in 2018, *** percent in interim 2018, and *** percent in interim 2019. *Id.*

[224] CR/PR at VII-3. The subject industry's inventories were *** short tons in interim 2018 and *** short tons in interim 2019. *Id.*

[225] CR/PR at VII-9.

[226] CR/PR at VII-4

utilization rate and robust home market demand.[227] Accordingly, we do not find that subject imports are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, or are likely to increase demand for further imports.

3. Likely Impact

We do not find that subject imports are likely to have actual or potential negative effects on the existing development and production efforts of the domestic industry. The domestic industry's total capital expenditures increased by a substantial *** percent from 2016 to 2018, and were only *** percent lower in interim 2019 than in interim 2018,[228] suggesting that the domestic industry's existing development and production efforts were robust during the POI. Furthermore, the domestic industry reported *** research and development expenditures during the POI, indicating that it is a mature industry.[229]

Although the domestic industry's financial performance during the POI was generally poor, we did not find a causal nexus between price-based competition from subject imports and the declines in the domestic industry's performance. Furthermore, the record indicates that the domestic industry's poor financial condition is greatly influenced by its low-priced, below-cost export shipments.[230] Thus, there is no likelihood of any change in conditions of competition that will likely cause subject imports to have a different impact on the industry in the imminent future.

For the reasons stated above, we find that the domestic industry is not threatened with material injury by reason of subject imports.

VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of subject imports of SSA from Canada that are sold in the United States at less than fair value.

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[227] CR/PR at Table VII-3.

[228] CR/PR at Tables C-1 and VI-8.

[229] CR/PR at Table VI-8. We acknowledge that a majority of producers reported that they anticipated that subject imports would have negative effects. *Id.* at Table VI-10. Nevertheless, we cannot accord these perceptions controlling weight in light of other record data indicating that subject imports did not have a significant impact on the domestic industry during the POI, are not likely to increase significantly in the imminent future, and have not caused and are unlikely to cause significant price effects.

[230] *See* CR/PR at VI-18 to VI-19.

Part I: Introduction

Background

This investigation results from a petition filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Cooper Natural Resources, Inc. ("CNR"), Fort Worth, Texas; Elementis Global LLC ("Elementis"), East Windsor, New Jersey; and Searles Valley Minerals, Inc. ("SVM"), Overland Park, Kansas, on March 28, 2019, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of sodium sulfate anhydrous ("SSA") from Canada.[1] The following tabulation provides information relating to the background of this investigation.[2] [3]

Effective date	Action
March 28, 2019	Petition filed with Commerce and the Commission; institution of the Commission's investigation (84 FR 13066, April 3, 2019)
April 17, 2019	Commerce's notice of initiation (84 FR 17138, April 24, 2019)
May 13, 2019	Commission's preliminary determination (84 FR 22519, May 17, 2019)
November 8, 2019	Commerce's preliminary determination (84 FR 60375, November 8, 2019); scheduling of final phase of Commission investigation (84 FR 66218, December 3, 2019)
March 19-27, 2020	Commission's hearing
March 30, 2020	Commerce's final determination (85 FR 17534, March 30, 2020)
April 23, 2020	Commission's vote
May 13, 2020	Commission's views

[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] The Commission conducted its hearing through a series of written questions, submissions of written testimony, written responses to questions, and posthearing briefs. Appendix B presents the witnesses that participated in the Commission's hearing.

Statutory criteria

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

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

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

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

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

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

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

Organization of report

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

SSA is generally used in the production of dry powder laundry and dishwasher detergents, food starches, textiles, pulp and paper, glass, and other products.[6] The leading U.S. producers of SSA are CNR, Elementis, and SVM, while leading producers of SSA outside the United States include Saskatchewan Mining and Minerals Inc. ("SMMI") of Canada. The leading U.S. importer of SSA from Canada is SMMI, while the leading importers of SSA from nonsubject countries (primarily China and India) include ***. U.S. purchasers of SSA are firms that act as distributors, or produce powdered detergent, glass, paper, and other products; leading purchasers include ***.

[5] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.
[6] Petition, p. 7.

Apparent U.S. consumption of SSA totaled approximately 375,190 short tons ($35.1 million) in 2018. Currently, eight firms are known to produce SSA in the United States. U.S. producers' U.S. shipments of SSA totaled 309,939 short tons ($27.6 million) in 2018 and accounted for 82.6 percent of apparent U.S. consumption by quantity and 78.7 percent by value. U.S. imports from subject sources totaled 55,387 short tons ($5.8 million) in 2018 and accounted for 14.8 percent of apparent U.S. consumption by quantity and 16.4 percent by value. U.S. imports from nonsubject sources totaled 9,865 short tons ($1.7 million) in 2018 and accounted for 2.6 percent of apparent U.S. consumption by quantity and 4.9 percent by value.

Summary data and data sources

A summary of data collected in this investigation is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of seven firms that accounted for the vast majority of U.S. production of SSA during 2018.[7] U.S. imports are based on official Commerce statistics and the questionnaire responses of 9 firms that accounted for the vast majority (***) of U.S. imports of SSA from Canada and the majority (*** percent) of total U.S. imports of SSA during 2018.[8] [9] Foreign industry data and related information are based on the questionnaire responses of two producers of SSA, SMMI and TODA Advanced Materials ("TODA"), that accounted for all known production of SSA in Canada and all exports of SSA to the United States during 2018.[10]

[7] JCI Controls, Inc. ("JCI"), a domestic producer of synthetic SSA, did not respond to the Commission's questionnaire. JCI is believed to account for approximately *** percent of total U.S. production in 2018, based ***.

[8] SMMI accounted for the vast majority of U.S. imports of SSA from Canada during the period of investigation.

[9] Import coverage for firms that responded to the Commission's importer questionnaire is based on official Commerce statistics using HTS statistical reporting number 2833.11.5010.

[10] SMMI accounted for the vast majority of production of SSA in Canada and exports of SSA to the United States.

Previous and related investigations

SSA from Canada has been the subject of a prior antidumping duty investigation in the United States. On July 10, 2000, a petition was filed by CNR, Tulsa, Oklahoma, and IMC Chemicals, Inc., New York, New York, alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV imports of SSA from Canada. Accordingly, the Commission instituted antidumping duty investigation No. 731-TA-884 (Preliminary).[11] On August 24, 2000, the Commission determined that there was no reasonable indication that an industry in the United States was materially injured or threatened with material injury, or that the establishment of an industry in the United States was materially retarded, by reason of imports of SSA from Canada that were alleged to be sold in the United States at LTFV.[12]

Nature and extent of sales at LTFV

On March 30, 2020, Commerce published a notice in the *Federal Register* of its final determination of sales at LTFV with respect to imports from Canada.[13] Table I-1 presents Commerce's dumping margins with respect to imports of SSA from Canada.

Table I-1
SSA: Commerce's final weighted-average LTFV margins with respect to imports from Canada

Exporter/producer	Final dumping margin (percent)
Saskatchewan Mining and Minerals Inc.	8.89
All others	8.89

Source: 85 FR 17534, March 30, 2020.

[11] 65 FR 44075, July 17, 2000.

[12] 65 FR 52783, August 30, 2000. *See also* Anhydrous Sodium Sulfate From Canada: Investigation No. 731-TA-884 (Preliminary), USITC Publication 3345 (September 2000).

[13] 85 FR 17534, March 30, 2020.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[14]

> *The scope of this investigation covers sodium sulfate (Na_2SO_4) (Chemical Abstracts Service (CAS) Number 7757-82-6) that is anhydrous (i.e., containing no water), regardless of purity, grade, color, production method, and form of packaging, in which the percentage of particles between 20 mesh and 100 mesh, based on U.S. mesh series screens, ranges from 10-95% and the percentage of particles finer than 100 mesh, based on U.S. mesh series screens, ranges from 5-90%.*
>
> *Excluded from the scope of this investigation are specialty sodium sulfate anhydrous products, which are products whose particle distributions fall outside the described ranges. Glauber's salt ($Na_2SO_4 \cdot 10H_2O$), also known as sodium sulfate decahydrate, an intermediate product in the production of sodium sulfate anhydrous that has no known commercial uses, is not included within the scope of the investigation, although some end-users may mistakenly refer to sodium sulfate anhydrous as Glauber's salt. Other forms of sodium sulfate that are hydrous (i.e., containing water) are also excluded from the scope of the investigation.*

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to this investigation is imported under statistical reporting number 2833.11.5010 of the Harmonized Tariff Schedule of the United States ("HTS"), a provision that describes only this compound.[15] Subject merchandise may also be classified under statistical reporting numbers 2833.11.1000 (which covers disodium sulfate in the form of salt cake), 2833.11.5050 (disodium sulfate other than salt cake or anhydrous), and 2833.19.0000 (other sodium sulfates not specifically named).[16] The general rate of duty is 0.4 percent ad valorem for HTS subheading 2833.11.50 and free for HTS subheadings 2833.11.10

[14] Ibid.
[15] Ibid.
[16] Conference transcript, pp. 115-118 (Kane), 181-182 (Cozart).

and 2833.19.00.[17] Originating goods of Canada under HTS subheading 2833.11.50 are eligible for duty-free entry under the North American Free Trade Agreement. 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

Anhydrous sodium sulfate (SSA) is a white, granular, crystalized powder with the chemical formula Na_2SO_4. Anhydrous indicates that there is no water of crystallization present, unlike sodium sulfate decahydrate ($Na_2SO_4 \cdot 10H_2O$, Glauber's Salt), which is an intermediate product in the production of SSA and outside the scope of the investigation.[18] SSA is hygroscopic, requiring a low moisture environment during transport and storage to prevent caking.

SSA does not have universally defined grades, and manufacturers designate products based on suitability for certain applications. The principal differences in grades relate to color and particle size. For example, paper production specifies acceptable colors, while detergents require the appropriate color for appearance and particle size to create a homogeneous formulation. Despite these differences, the different grades tend to be interchangeable.[19] The petitioners cite that commercial SSA is generally sold at 99 percent purity or greater.[20]

Salt cake, as a grade or form of SSA, is within the scope of the investigation. Petitioners explain that salt cake is a term used by the pulp and paper industry to refer to SSA,[21] although no U.S. producers specifically manufacture a salt cake product.[22] Historically, the SSA producers state that the salt cake grade may have contained higher levels of impurities, but any salt cake used currently would be interchangeable with other forms of SSA.[23]

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[17] All statistical breakouts under subheading 2833.11 are subject to an additional duty of 25 percent ad valorem for imports from China through Section 301 tariffs (HTS subheading 9903.88.03). These duties increased from 10 percent, effective September 24, 2018, to 25 percent, effective May 10, 2019. 83 FR 47974, September 21, 2018; and 84 FR 20459, May 9, 2019.

[18] Petition, p. 7.

[19] Ibid; Conference transcript, pp. 63-64 (Kane), pp. 64-65 (Cortese), pp. 186-187 (Avery).

[20] Ibid.

[21] Conference transcript, pp. 63-64 (Kane), pp. 64-65 (Cortese).

[22] Conference transcript, pp. 115-117 (Kane).

[23] Conference transcript, pp.131-132 (McCann).

Approximately *** percent of the SSA consumed in the United States is used to manufacture detergents, where it is used as a filler and diluent in powdered formulations.[24] Petitioner estimates that *** percent of the SSA consumed globally is used in powdered detergents, driven by demand in ***.[25] Less SSA is used in concentrated detergents and none in liquid detergents. Glassmaking accounts for approximately *** percent of U.S. consumption. SSA acts as a fining agent in the glass melt to remove bubbles and impurities while also serving as a flux to prevent the formation of silica scum.[26] The pulp and paper industry uses SSA as an input to the kraft process[27] as a source of sodium sulfide (Na_2S) in the pulping liquor, accounting for approximately *** percent of U.S. consumption. Other applications representing less than *** percent of consumption include textiles (where it is used to allow dyes to evenly penetrate fibers), carpet freshening, starch, animal feed, and coal conditioning.[28]

The petitioners have indicated that there are a number of potential substitutes for SSA depending on the application. Sodium chloride (NaCl) could be used in detergents and textile processing, but may increase the corrosion of producers' or users' equipment. SSA could be replaced by gypsum (calcium sulfate dihydrate, $CaSO_4 \cdot 2H_2O$) or other salts for glassmaking,[29] and is used by some producers, although it cannot be a source of sodium oxide like SSA to change the thermal properties of the finished glass. There are two replacements for the pulp and paper industry currently in use—sodium hydrosulfide (NaHS) or a mixture of emulsified sulfur and sodium hydroxide (NaOH).[30] All three sulfur sources are ultimately used to produce sodium sulfide (Na_2S) within the process, although generating it from each follows different chemical pathways requiring different design considerations, and the choice of using one over the others is reported as not being dependent on the price of inputs.[31]

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[24] *Sodium Sulfate* by Adam Gao, Chiyo Funada, Samantha Witlisbach, and Sean Davis in *Chemical Economics Handbook*, November 2016.

[25] Staff field trip report, CNR, January 16, 2020, p. 3.

[26] *Influence of Fining Agents on Glass Melting: a Review, Part 1* by Miroslava Hujová and Miroslava Vernerová in Ceramics-Silikáty, 2017, Volume 61, pp 19-126.

[27] For a description of the kraft process, see: *Pulp* by J. F. Kadla and Q. Dai in *Kirk-Othmer Encyclopedia of Chemical Technology*, 2006.

[28] *Sodium Sulfate* by Adam Gao, Chiyo Funada, Samantha Witlisbach, and Sean Davis in *Chemical Economics Handbook*, November 2016.

[29] Anhydrous Sodium Sulfate From Canada: Investigation No. 731-TA-884 (Preliminary), USITC Publication 3345 (September 2000), pp. I-5; Petition, pp. 8-9.

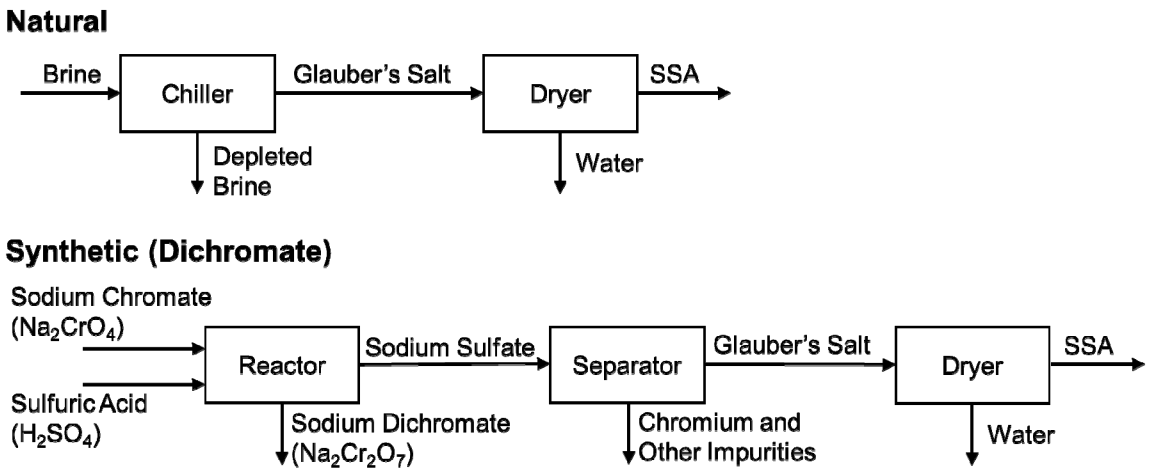
[30] *Sodium Sulfate* by Adam Gao, Chiyo Funada, Samantha Witlisbach, and Sean Davis in *Chemical Economics Handbook*, November 2016, p. 14; andConference transcript, p. 89 (Kane).

[31] Conference transcript, p. 89 (Kane).

Manufacturing processes

SSA is either mined (natural) or generated as a part of chemical processes (synthetic);[32] figure I-1 shows generalized block flow diagrams of natural and synthetic processes. Both U.S. and Canadian natural SSA are currently produced from brines derived from saline lakes. Petitioner CNR pumps sub-surface brines from Cedar Lake, Texas, cooling them with chillers to precipitate Glauber's salt.[33] SSA is then made by drying the Glauber's salt.[34] Petitioner reports that ***, as evidenced by *** necessitating the use of ***.[35]

Figure I-1
SSA: Production Block Flow Diagrams



Source: Based on conference transcript p. 26 (Ford), pp. 132-133 (McCann), and p. 120 (Cortese); petition, p. 8; petitioners' postconference brief, exhibit 1, pp. 22-23; and *Chemicals from Brine* by David Butts in *Kirk-Othmer Encyclopedia of Chemical Technology*, 2003.

Production by petitioner SVM follows a similar process, albeit with preceding steps to extract other components of the brine. Sodium carbonate (Na_2CO_3) is removed from the brine first by adding carbon dioxide (CO_2)[36] to form sodium hydrogen carbonate ($NaHCO_3$), which

[32] *Sodium Sulfates and Sulfides* by David Butts and David R. Bush in *Kirk-Othmer Encyclopedia of Chemical Technology*, 2013.

[33] Petition, p. 8; Staff field trip report, CNR, January 16, 2020, p. 4–5.

[34] Ibid.

[35] Staff field trip report, CNR, January 16, 2020, p. 6.

[36] Conference transcript, p. 26 (Ford); and Petitioners' postconference brief, exhibit 1, pp. 22-23.

crystallizes out.[37] The brine, depleted of sodium carbonate, is then cooled to recover borax crystals (sodium tetraborate decahydrate $Na_2B_4O_7 \cdot 10H_2O$). Further cooling the remaining brine yields Glauber's salt, which is dried to complete the production of SSA.

The respondent, SMMI, differs from the domestic producers insofar as it utilizes natural temperature changes to precipitate Glauber's salt rather than mechanical refrigeration.[38] Petitioner CNR *** that this is the ***.[39] Brine is produced by diverting fresh water over sodium sulfate-containing soils to extract Glauber's salt in the spring and summer. That brine is then pumped and concentrated through evaporation in the summer heat. Glauber's salt precipitates in the fall and winter, which is melted and filtered before being dried to form SSA. SMMI states that the yield of the manufacturing process is heavily dependent on the weather due to its reliance on natural temperature changes and precipitation.[40] SMMI reports that it experienced reduced SSA production due to abnormal weather during the 2014-2016 harvesting seasons.[41]

Synthetic SSA can be produced in multiple processes that involve sulfuric acid. Petitioner Elementis produces it as part of sodium dichromate ($Na_2Cr_2O_7$) manufacturing.[42] In that process, sulfuric acid (H_2SO_4) is added to a boiling solution of sodium chromate (Na_2CrO_4), which forms the sodium dichromate and sodium sulfate.[43] The sodium sulfate stream is purified to remove chromium and other metal impurities, then it is dried to form SSA.[44] Other major sources of U.S. synthetic SSA include lead acid battery recycling, silica pigment production, and resorcinol production. Other major processes outside of the U.S. and Canada that produce synthetic SSA include two hydrochloric acid (HCl) manufacturing methods[45] and rayon production.[46]

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[37] *Chemicals from Brine* by David Butts in *Kirk-Othmer Encyclopedia of Chemical Technology*, 2003.

[38] Conference transcript, pp. 132-133 (McCann), 187-188 (Avery and Hironaka).

[39] Staff field trip report, CNR, January 16, 2020, p. 5.

[40] Conference transcript, pp. 133-134 (McCann), pp. 160-161 (McCann).

[41] Conference transcript, p. 134 (McCann), p. 142 (Kearney), pp. 157-158 (Avery), p. 158 (Hironaka).

[42] Conference transcript, p. 23 (Cortese).

[43] $2Na_2CrO_4 + H_2SO_4 \longrightarrow Na_2Cr_2O_7 + Na_2SO_4 + H_2O$

[44] Conference transcript, p. 120 (Cortese).

[45] Mannheim process: $2NaCl + H_2SO_4 \longrightarrow Na_2SO_4 + 2HCl$
Hargreaves process: $4NaCl + 2SO_2 + O_2 + 2H_2O \longrightarrow 2Na_2SO_4 + 4HCl$

[46] *Sodium Sulfates and Sulfides* by David Butts and David R. Bush in *Kirk-Othmer Encyclopedia of Chemical Technology*, 2013.

Domestic like product issues

No issues with respect to domestic like product have been raised in this investigation. The petitioners propose a single domestic like product consisting of SSA, co-extensive with the scope of the investigation.[47] During the preliminary-phase of the investigation, respondents agreed with petitioners' proposed domestic like product definition, but reserved the right to contest it in any final-phase investigation.[48] The Commission defined a single domestic like product consisting of all SSA, whether naturally produced or synthetically produced, coextensive with the scope of the investigation.[49]

During the final phase of the investigation, petitioners maintained that the domestic like product should be defined as a single domestic like product, specifically SSA.[50] No other party commented on the domestic like product definition, or the definition of the domestic industry, in this final phase.

[47] Petition, p. 2; conference transcript, p. 12 (Trendl); Petitioners' postconference brief, pp. 3-5; and Petitioners' prehearing brief, pp. 2-3.

[48] Conference transcript, p. 167 (Heffner).

[49] Sodium Sulfate Anhydrous from Canada, Inv. No. 731-TA-1446 (Preliminary), USITC Publication 4895, May 2019, pp. 7.-8.

[50] Petitioners' prehearing brief, pp. 2-3.

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

U.S. market characteristics

SSA is a white, granular, powder with the chemical formula Na_2SO_4. SSA is used in a variety of end uses including in the production of detergents, paper, and in glassmaking.

SSA is either mined ("natural") or produced through a chemical process ("synthetic"), with natural SSA using brine from saline lakes. Purchasers report that natural and synthetic SSA are either always or usually used interchangeably. SSA sold in the U.S. market is almost exclusively produced by seven U.S. producers and the Canadian firm SMMI. There are several substitutes for SSA, however, substitutes may change the characteristics of the final product in which it is used.

Apparent U.S. consumption of SSA increased during 2016-18. Overall, apparent U.S. consumption in 2018 was 2.9 percent higher than in 2016.

U.S. purchasers

The Commission received 29 usable questionnaire responses from firms that had purchased SSA during January 2016-September 2019.[1] [2] Eleven responding purchasers are distributors, 17 are end users, and 2 reported they were "other."[3] Most responding U.S.

[1] The following firms provided purchaser questionnaire responses: ***.

[2] Of the 29 responding purchasers, 22 purchased domestic SSA, 21 purchased imported Canadian SSA or imported SSA from Canada, 4 purchased imports of SSA from other sources or imported SSA from other sources, and 2 did not know the source of their SSA.

[3] ***.

purchasers were headquartered in the Southeast and Midwest regions.[4] The responding purchasers represented firms in a variety of domestic industries, including float glass, powdered detergent, paper, and other products. Large purchasers of SSA include, in order of the amount they purchased, *** and these *** firms purchased the majority of all reported purchases reported by purchasers in 2018.[5]

Channels of distribution

U.S. producers sold more to end users (*** percent) than to distributors (*** percent) in 2018, with most sales to distributors being sales to the distributor/marketer Giles/Saltex.[6] [7] Importers sold mainly to end users, as shown in table II-1. Three U.S. producers (***) reported selling SSA both to distributors and end users. Four U.S. producers (***), representing *** percent of reported U.S. shipments in 2018, sold all their SSA to distributor Giles/Saltex which performs all the marketing functions for these producers.[8]

[4] One purchaser each was headquartered in the ***.

[5] The majority of purchasers (16 of 26, including ***,) purchased some or all their SSA from Giles/Saltex. ***.

[6] U.S. producers of natural SSA sold over two-thirds of their product to end users (*** percent) in 2018, while producers of synthetic SSA sold most of their SSA to distributors including Giles/Saltex (*** percent) in 2018.

[7] Purchaser responses to questions on the role of Giles/Saltex in the SSA industry are discussed later in this section. Appendix E presents Giles/Saltex's selling prices for products from the U.S. producers that use Giles/Saltex as a marketing firm.

[8] ***. Producers selling all their SSA to Giles/Saltex provided relatively few responses to questions about the market for SSA since they had outsourced their marketing of SSA and have limited knowledge of the market for SSA and the conditions of competition in this market.

Table II-1
SSA: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2016-18, January-September 2018, and January-September 2019

Item	Period				
	Calendar year			January-September	
	2016	2017	2018	2018	2019
	Share of reported shipments (percent)				
U.S. producers' U.S. commercial shipments of SSA:					
Distributors excluding Giles/Saltex	***	***	***	***	***
Distributor/marketer Giles/Saltex	***	***	***	***	***
Total distributors/marketers	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of SSA from Canada:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
U.S. importers' U.S. commercial shipments of SSA from all other countries:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***

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

Geographic distribution

U.S. producers reported selling SSA to all regions in the contiguous United States, but most U.S. producers' sales were made to the Midwest, the Southeast, and Central Southwest (table II-2).[9] Importers reported selling most of their SSA to the Midwest and Pacific Coast, and reported no sales to the Northeast. U.S. producers tend to ship SSA longer distances than importers. For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles.[10] Importers sold *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.[11]

[9] These data exclude most sales to Giles/Saltex because most firms selling to it did not know where product was shipped. ***.

[10] These data exclude sales to Giles/Saltex because most firms selling to it did not know shipping distances.

[11] Questionnaires did not specify that importers' point of shipment was at either the U.S. border or at its U.S. point of shipment in this question.

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

Region	U.S. producers	Importers
Northeast	***	***
Midwest	***	***
Southeast	***	***
Central Southwest	***	***
Mountain	***	***
Pacific Coast	***	***
Other	***	***
All regions (except Other)	***	***
Reporting firms	4	1

Note: All other U.S. markets, including AK, HI, PR, and VI.

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

Supply and demand considerations

U.S. supply

Table II-3 provides a summary of the supply factors regarding SSA from U.S. producers and from Canada. Some SSA is produced as a byproduct or a co-product making the amount produced less responsive to the price of SSA.[12]

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

	Capacity (short tons)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2018 (percent)		Able to shift to alternate products
Country	2016	2018	2016	2018	2016	2018	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	***	***	***	***	***	***	***	***	0 of 7
Canada	***	***	***	***	***	***	***	***	0 of 2

Note.—Responding U.S. producers accounted for the vast majority of U.S. production of SSA in 2018. Responding foreign producer/exporter firms accounted for the vast majority of U.S. imports of SSA from Canada during 2018. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from Canada, please refer to Part I, "Summary Data and Data Sources."

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

[12] SMMI's prehearing brief, p. 7.

Domestic production

Based on available information, U.S. producers of SSA have the ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of U.S.-produced SSA to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories[13] and the ability to shift shipments from alternate markets.[14] Export markets included Brazil, Central America, the Dominican Republic, and Mexico. Factors mitigating responsiveness of supply include the inability to shift production to or from alternate products. In addition, to the extent that U.S. producers produce SSA as a coproduct or as a byproduct, their unused capacity will be less responsive to changes in the price of SSA, since their production of other products is a priority.[15]

Between 2016 and 2018, U.S. producers' capacity utilization remained relatively unchanged, with both capacity and production changing little. No U.S. producers reported producing other products on the same equipment as SSA. Two U.S. producers (***) report that their production of SSA is limited because it is a byproduct of their production of ***. Two U.S. producers (***) produced SSA as a coproduct, and thus their SSA production levels are influenced by the prices of the coproducts as well as the price of SSA.[16] Other producers reported that production capacity was determined by equipment.

[13] U.S. producers only keep a two- to three-month supply of SSA production in inventories, at a maximum, due to associated costs. Conference transcript, p. 68 (Murphy). U.S. producers of byproduct SSA sell their SSA directly to U.S. distributor Giles/Saltex. Respondents claim that byproduct producers are very interested in limiting their inventories to limit the need for storage space and to be able to maintain production of other products. SMMI's posthearing brief, response to Commission questions pp. 1-2.

[14] U.S. producers appear to have an incentive as well as the ability to shift sales of SSA from exports to domestic sales because the AUVs of exports are less than half the value of U.S. commercial shipments in all three full years for which data were collected. There is relatively little product differentiation in SSA so that differences in AUVs are not likely to mainly represent differences in the SSA sold in different markets. ***.

[15] U.S. producer ***.

[16] SMMI's prehearing brief, p. 21.

Subject imports from Canada

Based on available information, producers of SSA from Canada have the ability to respond to changes in demand with moderate changes in the quantity of shipments of SSA to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories and the ability to shift shipments from the Canadian market. Factors mitigating responsiveness of supply include being unable to shift shipments from third country markets or shift production to or from alternate products.

Canadian producers' capacity utilization decreased by *** percent points between 2016-18, with capacity increasing more than production. Canadian producers did not report any shipments outside the United States and Canada, and reportedly cannot produce other products on the same equipment as SSA.

Imports from nonsubject sources

Imports from nonsubject sources accounted for 15.1 percent of total U.S. imports in 2018. The largest sources of nonsubject imports during 2016-18 were India, China, and Japan. Combined, these countries accounted for 81.6 percent of nonsubject imports in 2018.

Supply constraints

Two of 6 responding U.S. producers, 1 of 5 responding importers, and 6 of 29 purchasers reported that they had experienced supply constraints since January 1, 2016. U.S. producer *** and ***. ***. Purchasers reported supply constraints at a number of SSA suppliers: outages at Elementis and SVM due to a force majeure, unusable product from Evonik in *** applications, synthetic SSA was out of *** specifications, Giles/Saltex regularly had issues meeting *** demand, *** reported that because *** creates high logistic costs, it does not get bids from U.S. producers, and SVM declined to bid in *** request for proposal. Purchaser ***. Petitioners claim that

***.[17]

New suppliers

Two of 29 responding purchasers indicated that new suppliers entered the U.S. market since January 1, 2016. Purchasers cited Deepak Nitrite (India) and TODA (Canada) as new suppliers.

U.S. demand

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

End uses and cost share

U.S. demand for SSA depends on the demand for U.S.-produced downstream products. Reported end uses include powdered laundry detergent, paper, glass, and starch.

SSA accounts for a small share of the cost in most of the end-use products in which it is used. Reported cost shares for some end uses were as follows:

- Powdered laundry detergent/stain removers – 3 to 11.8 percent
- Water treatment – 5 percent
- Starch – 1 percent
- Glass – 0.1 to 1 percent
- Pulp and paper – 0.5 to 1.2 percent
- *** – 1 to 2 percent
- *** – 11.8 percent
- *** – 4 to 8 percent
- *** – 5 percent
- *** – 1.1 percent
- *** – 8 percent
- *** – 0.5 to 1.5 percent.

[17] Petitioners' posthearing brief, Responses to Commissioner questions, pp. 34-36.

Business cycles

Relatively few firms indicated that the market was subject to business cycles or conditions of competition (none of the 6 responding U.S. producers, 2 of 7 responding importers, and 2 of 28 responding purchasers). One purchaser (***) reported that business cycles have changed because of imports of low-cost SSA from Canada and U.S. demand for SSA has fallen because the largest U.S. consumer of SSA has moved its production to Mexico. Purchaser *** reported its demand was related to demand in the ***. Importer (***) listed technological changes as a condition of competition. Importer (***) reported that the increased SSA production as a byproduct (where SSA supply is determined by the demand for this other product), has led to the supply of SSA being less responsive to the price of SSA. According to ***, byproduct producers must sell SSA in order to limit the cost of storage and/or disposal in landfills.

One producer, one importer, and three purchasers reported changes in the business cycles/conditions of competition since January 2016. Changes reported by these firms included: changes in contract prices; increased imports by SMMI; byproduct production has led to SSA supply being less responsive to price; increased SSA exports to Mexico; and demand that changes with that for ***. *** also reported U.S. demand has fallen because of the shift from powdered laundry detergents to liquid laundry detergents (which do not use SSA).

Demand trends

Most firms reported U.S. demand for SSA had decreased since January 1, 2016 (table II-4). Reasons given for decreased demand included: decreased use of powder detergents; declining U.S. textile production; changes in product mix that reduce domestic SSA consumption; ***; and ***.

Table II-4
SSA: 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	---	1	3	---
Importers	1	1	4	---
Purchasers	4	3	9	3
Demand outside the United States				
U.S. producers	2	1	---	---
Importers	2	---	---	1
Purchasers	4	3	2	---

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

Substitute products

Most responding importers (6 of 7) and purchasers (20 of 26) reported that there were no substitutes for SSA. Two of the three responding producers, however, reported that there were substitutes for SSA. Substitutes reported included: calcium sulfate (gypsum) and slag for glass production; sodium carbonate (soda ash) and sodium chloride (salt) for laundry detergent; sodium hydrosulfide, soda ash, and sodium hydroxide (caustic soda or lye) for paper and pulp production.[18]

Substitutability issues

The degree of substitution between domestic and imported SSA depends upon such factors as relative prices (price discounts/rebates, cost of delivery, etc.), quality (e.g., grade standards, lack of contamination, product consistency, etc.), and conditions of sale (e.g., lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is a moderate-to-high degree of substitutability between domestically produced SSA and SSA imported from Canada. Purchasers identified quality, quantity, delivery and lead times, and supplier relationship as factors for purchasing imported rather than U.S.-produced product.

Lead times

SSA is primarily sold from inventory. U.S. producers reported that *** percent of their commercial shipments were from inventories,[19] with lead times ranging from 3 to 21 days and averaging 13 days. Importers reported *** percent of its commercial shipments from U.S. inventories and the remaining *** percent from foreign inventories, with lead times averaging *** and *** days respectively.[20]

Knowledge of country sources

Twenty-four purchasers indicated they had marketing/pricing knowledge of domestic product, 21 of SSA imported from Canada, and 3 of SSA imported from nonsubject countries. As shown in table II-5, more than half of the responding purchasers (15 of 29) never make purchasing decisions based on the producer but 6 reported that they always make purchase

[18] Please see Part I for further information on substitutes and specific end uses.
[19] ***.
[20] ***.

(*continued*...)

decisions based on the producer. Most of their customers, however, never make their decision based on the producer. Most purchasers and their customers never purchase based on the country of origin. Of the six purchasers that reported that they always make decisions based the manufacturer, three firms cited that they require an approved supplier. Two purchasers cited a marketing agreement and purchasing exclusively from ***.[21]

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

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	6	3	5	15
Purchaser's customers make decision based on producer	1	---	2	12
Purchaser makes decision based on country	1	---	2	25
Purchaser's customers make decision based on country	---	---	---	15

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

Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for SSA were price (21 firms), quality (19 firms), and availability (18 firms) as shown in table II-6. Quality was the most frequently cited first-most important factor (cited by 8 firms), followed by availability (6 firms), price was the most frequently reported second-most important factors (9 firms), and price was the most frequently reported third-most important factor (8 firms).

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

Factor	First	Second	Third	Total
Price	4	9	8	21
Quality	8	7	4	19
Availability/security of supply	6	6	6	18
Approved supplier/relationship	8	0	0	8
Delivery	0	1	4	5
Service	1	2	0	3
Credit	0	0	2	2
Other	0	1	0	1

Note: Quality includes purchasers indicating consistency, meeting specifications, and performance.
Note: The other factor reported as second most important was mesh size.
Note: One purchaser reported both service and delivery as second factor, both are included as second factors in the table. Some purchasers reported only one or two factors.

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

Six of 29 responding purchasers reported that they never purchase the lowest-priced product, while 11 purchasers reported that they sometimes and 10 usually purchase the

[21] One purchaser did not explain why it always made purchase decision based on the producer.
(*continued*...)

lowest-priced product.[22] Two purchasers reported always purchasing the lowest-priced product.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 15 factors in their purchasing decisions (table II-7). The factors rated as very important by over half of the responding purchasers were reliability of supply (27 firms), availability (26), product consistency (25), price (23), quality meets industry standards (22 each), U.S. transportation costs (16), and delivery time (14). Factors rated as not important more frequently than they were rated as very important included extension of credit and product range (12 firms each reported they were not important) and discounts offered (9 firms reported it was not important).

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

Factor	Very important	Somewhat important	Not important
Availability	26	1	---
Delivery terms	7	18	2
Delivery time	14	12	1
Discounts offered	4	14	9
Extension of credit	3	12	12
Minimum quantity requirements	12	9	6
Packaging	10	14	3
Price	23	4	---
Product consistency	25	2	---
Product range	3	12	12
Quality meets industry standards	22	4	---
Quality exceeds industry standards	8	14	5
Reliability of supply	27	---	---
Technical support/service	7	15	4
U.S. transportation costs	16	10	1

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

Purchasers were asked to report factors that they consider when determining the quality of SSA. Factors listed included: appearance (consistent color and low turbidity in solution); cleanliness (purity, chemical analysis, lack of debris, few insoluble particles, and lack of specific chemical contaminants which may differ by end use); consistency (batch to batch and of particle size); meeting customer specifications (no returned material); meeting the

[22] One purchaser (***) checked both usually and sometimes, both responses are included above, and its response counted once in the total number purchasers responding to this question. It reported that it tries to buy at lowest price "***."

purchaser's standards/specification (compliance with FCC or cGMP standards, certificates of analysis, and safety documents); quality of packaging (no leaking bags); free flowing powder; and odor.

Supplier certification

Twenty-five of 28 responding purchasers require their suppliers to become certified or qualified to sell SSA to their firm.[23] Purchasers reported that the time to qualify a new supplier ranged from one day to over a year, with most purchasers that required certification (12 of 18) reporting that qualification required one month or less. Four purchasers reported that one or more domestic or foreign suppliers had failed in their attempts to qualify SSA or had lost its approved status since 2016. Two of these provided reasons for rejecting suppliers. *** reported that it had rejected ***. *** reported that it had rejected ***.

Interchangeability of natural vs synthetic SSA

Purchasers were asked to compare natural and synthetic SSA, however most purchasers did not respond to these questions. When asked if there were end uses that required only natural or only synthetic SSA, only one purchaser reported any end use in which it could use only one type of (natural) SSA; ***.

Purchasers were asked if natural and synthetic SSA were always, frequently, sometimes, or never interchangeable. Seven of the 10 responded that they were always interchangeable, and the remaining 3 reported that they were usually interchangeable. All three of the purchasers reporting that they were usually interchangeable reported factors that limited interchangeability. *** reported that in North America, only natural SSA meets its quality specifications and performance requirements, but in some regions outside the United States it uses both. *** purchased both natural and synthetic SSA but it reported that it has been unable to qualify synthetic SSA in its *** applications. *** reported that natural and synthetic SSA were interchangeable if their impurities and mesh size were acceptable.

[23] One firm reported that it did not require qualification because two suppliers were already qualified. This firm has been included with purchasers that require qualification since it uses only the two qualified suppliers.

Purchasers were asked if there were factors other than price that affected their choice between natural and synthetic SSA. Eight of 10 responding purchasers reported that there were differences other than price between natural and synthetic SSA including: compliance (with the food chemical codes and current good manufacturing practices); purity; meet specifications (low silica content); availability (supplier reliability, year-round availability, and storage); customer service; freight costs (delivered price); technical approval for use; and quality.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since January 1, 2016 (table II-8). Purchasers reported that their demand for U.S. product decreased because they needed less SSA in production of downstream products (reported by 3 firms) or because they changed sources (2 firms). Two purchasers reported shifting to purchases from U.S. producers to Canadian producers. *** reported shifting 10 percent of its purchases to SMMI and *** reported awarding its contract to SMMI. Two firms reported reasons they increased purchases of U.S. product, one reported this was the result of the closure of a nonsubject source, and one reported this was the result of increased SSA usage. Of the seven purchasers reporting fluctuating purchases of U.S. product, four reported that this was the result of downstream demand for their products, one reported purchasing only test quantities in 2018, one reported consumption increased because of price but then usage fell, and one reported that its consumption of U.S. product fluctuated with price. Reasons for increased purchases of Canadian product included increased demand, decreased availability from U.S. suppliers in 2017, and the aforementioned contracts with Canadian suppliers.

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

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	7	5	4	6	7
Canada	6	6	6	4	5
Other	14	2	2	1	---

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

Importance of purchasing domestic product

Twenty-four of 28 responding purchasers reported that all their purchases did not require purchasing U.S.-produced product. No purchaser reported that domestic product was required by law, but one reported it was required by their customers for all their purchases of SSA, and three reported other preferences required that all their SSA be domestic product. A

number of firms reported why they prefer domestic product. ***. *** reported purchasing under contract. *** reported purchasing only SSA produced in the United States but did not explain why, although it reported elsewhere in the questionnaire that it had purchased *** percent of its 2017 purchases from nonsubject sources.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked questions comparing SSA produced in the United States, Canada, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 15 factors for which they had been asked to rate the importance (table II-9). Most purchasers reported that U.S. and Canadian product were comparable on all but one factor. Half the purchasers reported that U.S. product was superior on price (i.e., lower priced).

Three purchasers compared U.S. SSA with nonsubject SSA and Canadian SSA with nonsubject SSA. The responses for U.S. and Canada compared to nonsubject countries were similar for all factors except for reliability of supply, technical support/service, and U.S. transportation costs. U.S. and nonsubject SSA, as well as Canadian and nonsubject SSA were rated as comparable by most purchasers for 11 factors. U.S. and Canadian product were rated as superior by most responding purchasers on price and reliability of supply. In addition, U.S. product was rated as superior to nonsubject product for U.S. transportation costs. There were mixed responses on delivery time and Canadian and nonsubject U.S. transportation costs.

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

Factor	U.S. vs. Canada			U.S. vs. Nonsubject			Canada vs. Nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	---	17	2	1	2	---	2	2	---
Delivery terms	2	16	1	---	2	1	1	2	1
Delivery time	4	13	2	1	1	1	2	1	1
Discounts offered	3	10	1	1	2	---	1	3	---
Extension of credit	---	17	1	---	3	---	---	4	---
Minimum quantity requirements	---	16	1	---	3	---	---	4	---
Packaging	---	18	---	---	3	---	---	4	---
Price	9	7	2	2	---	1	3	---	1
Product consistency	---	17	1	---	3	---	1	3	---
Product range	---	18	---	---	3	---	---	3	1
Quality meets industry standards	---	17	2	---	2	1	---	3	1
Quality exceeds industry standards	---	15	2	---	2	1	---	3	1
Reliability of supply	1	14	2	2	1	---	3	---	1
Technical support/service	1	16	1	---	3	---	---	3	1
U.S. transportation costs	4	12	2	2	---	1	2	1	1

Note: A rating of superior means that price/U.S. transportation cost is generally lower. For example, if a firm reported "U.S. superior," it meant that the U.S. product was generally priced lower than the imported product.
Note: S=first listed country's product is superior; C=both countries' products are comparable; I=first list country's product is inferior.

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

Comparison of U.S.-produced and imported SSA

In order to determine whether U.S.-produced SSA can generally be used in the same applications as imports from Canada, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-10, all producers and most purchasers reported that product from the United States and Canada were always or frequently interchangeable. All importers reported U.S. and Canadian SSA were either frequently or sometimes interchangeable. Most producers and half the responding purchasers reported that U.S. and nonsubject SSA were frequently interchangeable.

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

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Canada	2	2	---	---	---	1	2	---	11	8	2	1
Nonsubject countries comparisons:												
U.S. vs. nonsubject	1	3	---	---	1	1	1	1	1	3	1	1
Canada vs. nonsubject	1	1	---	---	---	1	1	1	1	3	1	1

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

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

Petitioners question some of the responses of the purchasers reporting that U.S. and Canadian product was of limited interchangeability. Petitioners claim that Nippon, a paper manufacturer, reported ***.[24] Petitioners claim that Novozymes ***.[25] Petitioners claim that ***.[26] Petitioners claim that ***.[27]

As can be seen from table II-11, 16 of 23 responding purchasers reported that domestically produced product always met minimum quality specifications. Fifteen of 21

[24] Petitioners' posthearing brief, Responses to Commissioner questions, pp. 11-12
[25] Petitioners' posthearing brief, Responses to Commissioner questions, pp. 12-14.
[26] Petitioners' posthearing brief, Responses to Commissioner questions, pp. 14-16.
[27] Petitioners' posthearing brief, Responses to Commissioner questions, p. 16.

responding purchasers reported that the SSA imported from Canada always met minimum quality specifications as well.

Table II-11
SSA: Ability to meet minimum quality specifications, by source

Source	Always	Usually	Sometimes	Rarely or never
United States	16	5	---	2
Canada	15	6	---	---
All other sources	2	2	---	1

Note: Purchasers were asked how often domestically produced or imported SSA meets minimum quality specifications for their own or their customers' uses.

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

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of SSA from the United States, Canada, or nonsubject countries. As seen in table II-12, all three responding producers reported there were never differences other than prices between U.S. and Canadian SSA while all three responding importers reported that there were always or frequently differences other than prices between U.S. and Canadian SSA. Purchaser responses were mixed, nine purchasers reported there were always differences other than prices between U.S. and Canadian SSA, six purchasers reported there were sometimes differences other than prices between U.S. and Canadian SSA, while five reported there were never differences other than price between U.S. and Canadian SSA.

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

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

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

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

Elasticity estimates

This section discusses elasticity estimates. Parties were encouraged to comment on these estimates. Petitioners noted the suggested demand elasticity from the prehearing report and did not disagree with its value.[28]

U.S. supply elasticity

The domestic supply elasticity for SSA measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of SSA. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced SSA. Analysis of these factors above indicates that the U.S. industry has the ability to moderately to greatly increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 6 is suggested. The supply elasticity of natural SSA would be higher than the elasticity of synthetic SSA. Since synthetic SSA is typically produced as a byproduct or a coproduct and it is less responsive to the price of SSA and the price synthetic producers receive for their SSA may respond more slowly and changes less than the price of SSA paid by end users.

U.S. demand elasticity

The U.S. demand elasticity for SSA measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of SSA. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the SSA in the production of any downstream products. Based on the available information, the aggregate demand for SSA is likely to be inelastic; a range of -0.5 to -0.75 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[29] Product differentiation, in turn, depends upon

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[28] Petitioners' posthearing brief, Responses to Commissioner questions, p. 44.

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

such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced SSA and imported SSA is likely to be in the range of 3 to 5.

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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of seven firms that accounted for the vast majority of U.S. production of SSA during 2018.

U.S. producers

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

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

Table III-1
SSA: U.S. producers of SSA, their positions on the petition, production locations, and shares of reported production, 2018

Firm	Position on petition	Production location(s)	Natural: Share of production (percent)	Synthetic: Share of production (percent)	SSA: Share of production (percent)
CNR	Petitioner	Loop, TX	***	***	***
East Penn	***	Lyon Station, PA	***	***	***
Eco-Bat	***	Middletown, NY	***	***	***
Elementis	Petitioner	Castle Hayne, NC	***	***	***
Evonik	***	Etowah, TN	***	***	***
GEO	***	Deer Park, TX	***	***	***
SVM	Petitioner	Trona, CA	***	***	***
Total			100.0	100.0	100.0

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

[1] JCI, a domestic producer of synthetic SSA, did not respond to the Commission's questionnaire. JCI is believed to account for approximately *** percent of total U.S. production in 2018, based ***.

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms. No U.S. producers are related to foreign producers of the subject merchandise and no U.S. producers are related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, no U.S. producers directly import the subject merchandise or purchase the subject merchandise from U.S. importers.[2]

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

Item / Firm	Firm Name	Affiliated/Ownership
Ownership:		
***	***	***
***	***	***
***	***	***
Related producers:		
***	***	***
***	***	***
***	***	***

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

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2016. Elementis reported temporary production curtailments in October 2018 due to hurricane Florence.[3] Petitioners reported that there were no major production curtailments or plant shutdowns between 2016 and 2018.[4] However, SVM, which was impacted by an earthquake in July 2019,[5] ***.

[2] In addition, Saltex, LLC is a joint venture between CNR and Giles Chemical Industries, and is referred to in this report as Giles/Saltex. Petitioners reported that "Saltex, LLC is a *** joint venture between Giles Chemical Industries and Cooper Natural Resources, with CNR having the ***% share ***. The purpose of the joint venture is to market sodium sulfate, leveraging the strengths of co-product production and natural production and marketing them all under one name with one overall marketing strategy." Petitioners' postconference brief, exh. 1 at pp. 2-3.

[3] Conference transcript, p. 89 (Cortese).

[4] Conference transcript, p. 53 (Rogers).

[5] Testimony of Pamela Ford, Vice President of Marketing & Sales, SVM, p. 3.

Table III-3
SSA: U.S. producers' reported changes in operations, since January 1, 2016

Item / Firm	Reported changes in operations
Prolonged shutdowns or curtailments:	
***	***
***	***
***	***

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

U.S. production, capacity, and capacity utilization

Tables III-4 through III-6 and figures III-1 through III-3 present U.S. producers' production, capacity, and capacity utilization for all SSA producers, natural SSA producers, and synthetic SSA producers. Domestic producers' SSA production decreased by 1.2 percent during 2016-18, while capacity remained stable. Production was lower in January-September 2019 than in January-September 2018; as discussed above, this is primarily due to ***.

The overall decrease in production between 2016 and 2018 is driven by the natural SSA producers (***), whose production decreased by *** percent, while the synthetic producers' SSA production increased by *** percent. Synthetic producers' SSA capacity and production is generally driven by the production and demand for their primary products. However, a representative for synthetic producer Elementis testified that its business model considers SSA equally with its other products (co-product rather than by-product).[6] Capacity utilization was high during 2016-18, ranging from 88.1 percent and 91.3 percent, and was 10.0 percentage points lower in interim 2019 than in interim 2018. High capacity utilization rates are common in the SSA industry, as SSA production is highly capital intensive and operations typically run continuously 24 hours per day, 7 days per week for 350 days of the year, with scheduled maintenance that last one to two days at a time.[7]

[6] Conference transcript, pp. 23-24 (Cortese).
[7] Ibid., pp. 21-23, 50-51 (Kane, Ford, and Murphy).

Six of seven responding U.S. producers reported constraints in the manufacturing process. Production constraints include equipment capacity and synthetic producers' production of primary products. Synthetic SSA producer *** further reported that it had the ability to manufacture its primary product without producing SSA, but it is not preferred as it would decrease deep well flow capacity. *** also reported that its state air permit limits its production and production constraints are related to its inability to make "major investments in all aspects of its operation, including cooling, evaporation, fresh water and brine wells, new roads, storage, etc." At the plant tour, CNR reported that ***.[8]

[8] Staff field trip report, CNR, January 16, 2020, p. 6.

Table III-4
SSA: U.S. producers' production, capacity, and capacity utilization, 2016-18, January-September 2018, and January-September 2019

Firm	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Capacity (short tons)				
CNR	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
SVM	***	***	***	***	***
Total capacity	594,182	594,182	594,182	445,637	445,637
	Production (short tons)				
CNR	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
SVM	***	***	***	***	***
Total production	529,858	542,506	523,588	395,824	351,186
	Share of production (percent)				
CNR	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
SVM	***	***	***	***	***
Share of production	100.0	100.0	100.0	100.0	100.0
	Capacity utilization (percent)				
CNR	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
SVM	***	***	***	***	***
Average capacity utilization	89.2	91.3	88.1	88.8	78.8

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

Table III-5
Natural SSA: U.S. producers' production, capacity, and capacity utilization, 2016-18, January-September 2018, and January-September 2019

Firm	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Capacity (short tons)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Total capacity	***	***	***	***	***
	Production (short tons)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Total production	***	***	***	***	***
	Share of production (percent)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Share of production	***	***	***	***	***
	Capacity utilization (percent)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Average capacity utilization	***	***	***	***	***

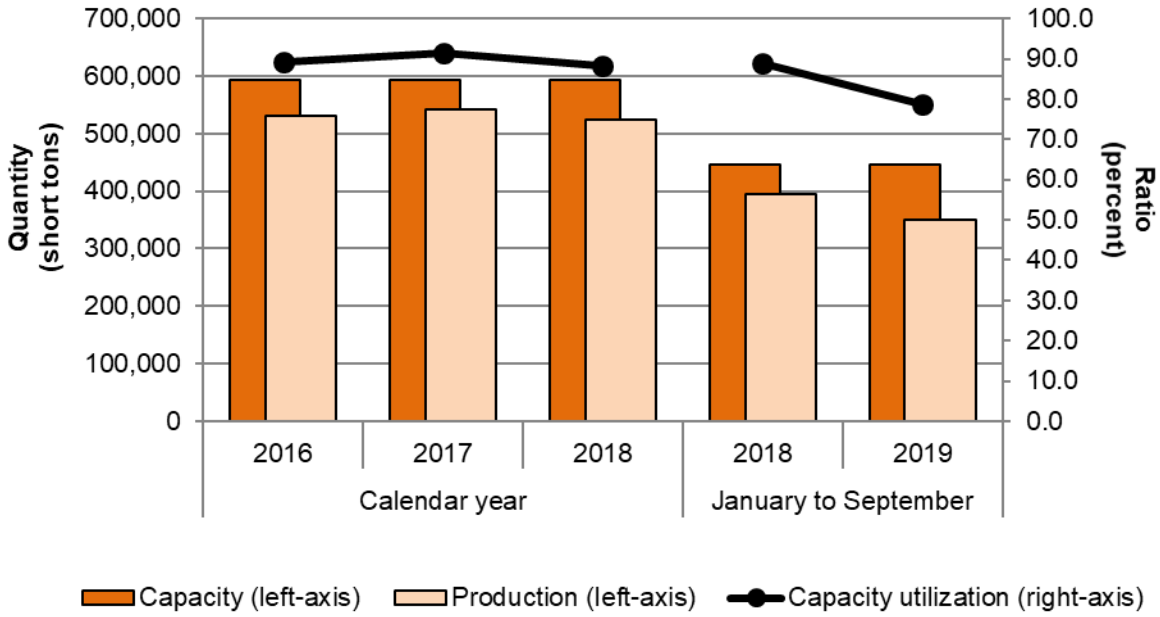
Source: Compiled from data submitted in response to Commission questionnaires.

Table III-6
Synthetic SSA: U.S. producers' production, capacity, and capacity utilization, 2016-18, January-September 2018, and January-September 2019

Firm	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Capacity (short tons)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Total capacity	***	***	***	***	***
	Production (short tons)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Total production	***	***	***	***	***
	Share of production (percent)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Share of production	***	***	***	***	***
	Capacity utilization (percent)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Elementis	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Average capacity utilization	***	***	***	***	***

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

Figure III-1
SSA: U.S. producers' capacity, production, and capacity utilization, 2016-18, January-September 2018, and January-September 2019



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

Figure III-2
Natural SSA: U.S. producers' production, capacity, and capacity utilization, 2016-18, January-September 2018, and January-September 2019

* * * * * * *

Figure III-3
Synthetic SSA: U.S. producers' production, capacity, and capacity utilization, 2016-18, January-September 2018, and January-September 2019

* * * * * * *

Alternative products

Natural SSA producers' equipment, machinery, and workers are dedicated solely to SSA production. Synthetic producers' production of their primary products is not produced on the same equipment and machinery, although they may use the same employees to process the SSA byproduct.

U.S. producers' U.S. shipments and exports

Tables III-7 through III-9 presents U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. shipments by quantity and value decreased overall during 2016-18, by 2.1 percent and 13.4 percent, respectively, and were 6.2 percent and 1.4 percent lower in interim 2019 than in interim 2018. Unit values decreased by 11.5 percent during this period, from $101 per short ton to $89 per short ton and were 5.1 percent higher in interim 2019 than in interim 2018. U.S. producers' U.S. shipments accounted for the majority of total shipments (*** percent in 2018), though export shipments as a share of total shipments increased by *** percentage points between 2016 and 2018, from *** percent to *** percent; export shipments were *** percent lower in interim 2019 than in interim 2018.

Three of seven U.S. producers reported export shipments during 2016-18, with *** accounting for the majority. Export unit values were *** lower than U.S. shipment unit values during 2016-18, particularly ***, and were higher in interim 2019 than in interim 2018.[9] SVM reported that "export values can and typically are lower than U.S. shipments due to logistics costs and market factors in various regions of the world. Export shipments have both inland and ocean freight versus SVM's typical one freight rate in the U.S."[10] At the plant tour, CNR reported that ***. CNR also speculated that ***.[11]

[9] ***. Staff correspondence with ***, February 19, 2020.
[10] Petitioners' post-conference brief, exh. 1, p. 14.
[11] Staff field trip report, CNR, January 16, 2020, p. 3.

Table III-7
SSA: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. shipments	316,552	315,374	309,939	229,079	214,985
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	31,906	30,341	27,645	20,567	20,289
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per short ton)				
U.S. shipments	101	96	89	90	94
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

Table III-8
Natural SSA: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per short ton)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

Table III-9
Synthetic SSA: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per short ton)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

U.S. producers' inventories

Tables III-10 through III-12 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.** The U.S. industry's inventories of SSA peaked in 2017 and increased overall by *** percent during 2016-18 and were *** percent lower in interim 2019 than in interim 2018. The ratio of inventories to production also peaked in 2017 and ranged between *** percent and *** percent. The ratio of inventories to U.S. shipments similarly peaked in 2017 and ranged between *** percent and *** percent. A representative from Elementis testified that the company tries to minimize inventory due to the associated costs and keeps "a month's worth of production in inventory."[12] A representative from SVM testified that SVM ensures that it has inventory to supply its customer base during planned and unplanned maintenance and

[12] Conference transcript, p. 68 (Murphy).

downtime.[13] A representative from SMMI also testified that synthetic SSA producers generally "do not have significant long-term storage facilities for sodium sulfate."[14] In addition, ***.[15]

Table III-10
SSA: U.S. producers' inventories, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. producers' end-of-period inventories	***	***	***	***	***
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

Table III-11
Natural SSA: U.S. producers' inventories, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. producers' end-of-period inventories	***	***	***	***	***
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

[13] Conference transcript, p. 119 (Ford).
[14] Conference transcript, p. 136 (McCann).
[15] Staff correspondence with ***, January 15, 2020.

Table III-12
Synthetic SSA: U.S. producers' inventories, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. producers' end-of-period inventories	***	***	***	***	***
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

U.S. producers' imports and purchases

U.S. producers did not import or purchase imports of SSA during January 2016-September 2019. Three U.S. producers (***) reported purchasing small quantities from domestic sources (***).

U.S. employment, wages, and productivity

Tables III-13 through III-15 show U.S. producers' employment-related data. As shown in table III-13, PRWs, wages paid, hourly wages, and unit labor costs increased between 2016 and 2018, while hours worked and hours worked per PRW decreased during the same period. All employment-related indicators, with the exception of productivity, were higher in interim 2019 than in interim 2018. Productivity remained flat during 2016-18 and was lower in interim 2019 than in interim 2018.

Table III-13
SSA: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	131	131	132	130	132
Total hours worked (1,000 hours)	300	296	291	221	232
Hours worked per PRW (hours)	2,291	2,258	2,204	1,702	1,754
Wages paid ($1,000)	10,453	10,582	10,561	8,029	8,952
Hourly wages (dollars per hour)	$34.84	$35.78	$36.29	$36.29	$38.66
Productivity (short tons per hour)	1.8	1.8	1.8	1.8	1.5
Unit labor costs (dollars per short ton)	$19.73	$19.51	$20.17	$20.29	$25.49

Note: ***. Staff correspondence with ***, January 15, 2020 and ***, February 25, 2020.

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

Table III-14
Natural SSA: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (short tons per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

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

Table III-15
Synthetic SSA: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (short tons per hour)	***	***	***	***	***
Unit labor costs (dollars per short ton)	***	***	***	***	***

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

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

U.S. importers

The Commission issued importer questionnaires to 35 firms believed to be importers of subject SSA, as well as to all U.S. producers of SSA.[1] Usable questionnaire responses were received from nine companies, representing *** percent of U.S. imports from Canada, *** percent of U.S. imports from all other sources, and *** percent of total U.S. imports in 2018.[2] [3] In light of the questionnaire coverage, U.S. imports are based on official Commerce statistics, HTS statistical reporting number 2833.11.5010.[4] Table IV-1 lists all responding U.S. importers of SSA from Canada and other sources, their locations, and their shares of U.S. imports, in 2018.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS statistical reporting numbers 2833.11.1000, 2833.11.5010, 2833.11.5050, and 2833.19.0000 during 2016-18 and January-September 2019.

[2] Two additional companies *** responded to the Commission's U.S. importer questionnaire but are not included in the import data presented in this report. ***. Staff correspondence with ***, February 19, 2020.

[3] The importer questionnaire coverage estimates were based on 2018 imports derived from U.S. importer questionnaire responses and 2018 total U.S. imports derived from official Commerce statistics under HTS statistical reporting number 2833.11.5010. Responding firms reported importing SSA *** under other HTS statistical reporting numbers, thus the coverage estimates may be overstated. The other HTS statistical reporting numbers were HTS 2833.11.5050 and 2833.19.0000. In addition, two firms reported SSA imports from China under HTS subheading 9903.88.03 (for additional duty pursuant to section 301).

[4] SSA imports from nonsubject sources are believed to enter under other HTS statistical reporting numbers that are "basket categories," thus import data presented in this report may be understated. SMMI, which accounted for the vast majority of imports of SSA from Canada, reported all of its imports under the main HTS statistical reporting number 2833.11.5010.

Table IV-1
SSA: U.S. importers by source, 2018

Firm	Headquarters	Share of imports by source (percent)		
		Canada	Nonsubject sources	All import sources
ACS	Pt Pleasant, NJ	***	***	***
DuPont/Danisco	Wilmington, DE	***	***	***
Fisher	Fairlawn, NJ	***	***	***
L.A. Supply	Santa Fe Springs, CA	***	***	***
Life Technologies	Carlsbad, CA	***	***	***
Novozymes	Franklinton, NC	***	***	***
Royale Pigments	Paramus, NJ	***	***	***
SMMI	Chaplin, Saskatchewan	***	***	***
Tristar	Santa Fe Springs, CA	***	***	***
Total		***	***	***

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.

U.S. imports

Table IV-2 and figure IV-1 present data for U.S. imports of SSA from Canada and all other sources. During 2016-18, total U.S. imports increased overall by 35.3 percent, based on quantity, and were 36.8 percent higher in January-September 2019 than in January-September 2018. Similarly, subject U.S. imports increased by 39.9 percent during 2016-17 then further increased by 1.8 percent in 2017-18, for an overall increase of 42.4 percent between 2016 and 2018; subject imports were 27.9 percent higher in interim 2019 than in interim 2018.[5]

[5] Respondent SMMI, which accounted for the vast majority of subject imports, claims that 2016 subject import volumes from Canada were at historically low levels due to a production shortage at its Canadian facility. Rather than supplying its U.S. customers with imported product from its Canadian facility, SMMI purchased SSA from domestic producer SVM to continue to supply its U.S. customers in 2015 and 2016. SMMI also reported that its imports to the U.S. have generally declined since 2010. Conference transcript, pp. 133-135, 141, 157-159 (McCann, Avery, Kearney, Hironaka, and Heffner); Respondent's prehearing brief, pp. 11-14; and Respondent's posthearing brief, p. 12.

Subject imports accounted for 84.9 percent of total U.S. imports in 2018, while nonsubject imports accounted for 15.1 percent. The largest sources of nonsubject imports were India, China, and Japan, in descending order of 2018 quantity. Imports from nonsubject sources fluctuated, increasing overall by 5.7 percent during 2016-18, and were 92.9 percent higher in interim 2019 than in interim 2018. Import levels from nonsubject sources Germany, France, and Mexico were approximately 4-30 times higher in interim 2019 when compared to interim 2018.[6]

Average unit values ("AUVs") from both subject and nonsubject sources decreased overall between 2016 and 2018, by 13.4 percent and 0.7 percent, respectively. Subject AUVs were 6.9 percent higher in January-September 2019 than in January-September 2018, while nonsubject AUVs were 10.2 percent lower during the same period. Nonsubject AUVs were generally higher than subject AUVs and ranged between $177 and $181 during 2016-2018, while subject AUVs ranged between $104 and $120 during the same period.[7] The ratio of subject imports to U.S. production increased by 3.2 percentage points during 2016-18, and was higher in January-September 2019 than in January-September 2018. Subject imports were equivalent to 10.6 percent of U.S. production in 2018.

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[6] Imports from France, Germany, and Mexico are presented in table IV-2 under "all other sources." Imports from Germany were 353 short tons in interim 2018 and 3,334 short tons in interim 2019. Imports from France were 653 short tons in interim 2018 and 2,841 short tons in interim 2019. Imports from Mexico were 85 short tons in interim 2018 and 2,532 short tons in interim 2019.

[7] Petitioners noted that the average unit values for imports from nonsubject sources are higher than what they have observed in the U.S. market for this product. They also noted that they have not seen the relatively high nonsubject import volumes in the market and speculated whether the product was being sold to unknown customers or misclassified. Conference transcript, pp. 45-47 (Rogers). Responding importers of SSA from nonsubject sources reported higher average unit values than importers of subject merchandise or U.S. producers, which is consistent with official import statistics. This may be due in part to product mix and/or differences in packaging. For example, an importer of SSA from India reported that the SSA it imports is ACS grade or electronic grade that is six times more expensive than commodity SSA. Staff correspondence with ***, April 17, 2019 and January 31, 2020. An importer from India and Japan similarly reported that its SSA is high purity and lab grade. Staff correspondence with ***, April 29, 2019. Another firm reported importing SSA from China and India in "bulk sizes for eventual repackaging in smaller catalog sizes. For example, a bulk order of 200kg of SSA is purchased and would be used to fulfill orders as small as 100mg…." This allows for a significant markup of the saleable quantities. Importer questionnaire response of *** at question II-8 and staff correspondence with ***, January 24, 2020. *See also generally* the importer questionnaire responses of ***.

Table IV-2
SSA: U.S. imports by source, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. imports from.--					
Canada (subject)	38,883	54,381	55,387	40,148	51,369
China	3,599	1,606	2,844	2,103	476
India	2,447	1,470	3,858	2,041	1,901
Japan	2,361	2,461	1,348	1,076	542
All other sources	928	2,138	1,814	1,119	9,310
Nonsubject sources	9,335	7,676	9,865	6,339	12,230
All import sources	48,218	62,058	65,251	46,488	63,599
	Value (1,000 dollars)				
U.S. imports from.--					
Canada (subject)	4,683	5,895	5,775	4,183	5,721
China	849	570	808	611	125
India	341	247	432	222	265
Japan	201	220	111	85	42
All other sources	257	352	379	245	1,582
Nonsubject sources	1,648	1,391	1,729	1,163	2,015
All import sources	6,332	7,285	7,504	5,347	7,735
	Unit value (dollars per short ton)				
U.S. imports from.--					
Canada (subject)	120	108	104	104	111
China	236	355	284	291	263
India	139	168	112	109	140
Japan	85	90	82	79	78
All other sources	277	165	209	219	170
Nonsubject sources	177	181	175	183	165
All import sources	131	117	115	115	122
	Share of quantity (percent)				
U.S. imports from.--					
Canada (subject)	80.6	87.6	84.9	86.4	80.8
China	7.5	2.6	4.4	4.5	0.7
India	5.1	2.4	5.9	4.4	3.0
Japan	4.9	4.0	2.1	2.3	0.9
All other sources	1.9	3.4	2.8	2.4	14.6
Nonsubject sources	19.4	12.4	15.1	13.6	19.2
All import sources	100.0	100.0	100.0	100.0	100.0

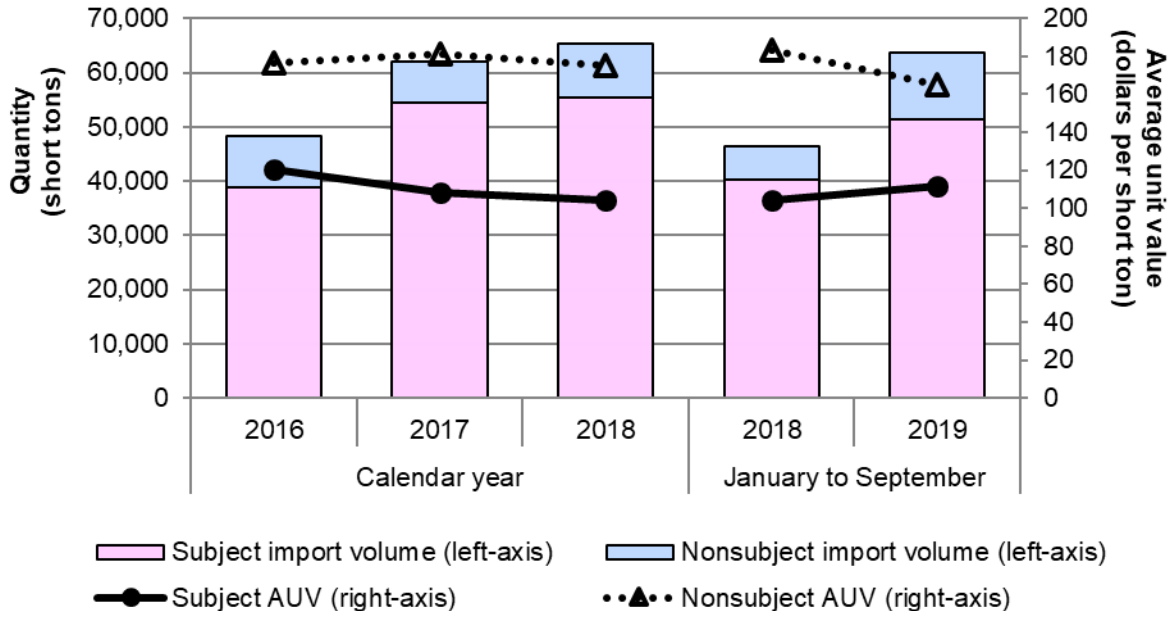
Table continued on next page.

Table IV-2--Continued
SSA: U.S. imports by source, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Share of value (percent)				
U.S. imports from.--					
Canada (subject)	74.0	80.9	77.0	78.2	74.0
China	13.4	7.8	10.8	11.4	1.6
India	5.4	3.4	5.8	4.2	3.4
Japan	3.2	3.0	1.5	1.6	0.5
All other sources	4.1	4.8	5.0	4.6	20.4
Nonsubject sources	26.0	19.1	23.0	21.8	26.0
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--					
Canada (subject)	7.3	10.0	10.6	10.1	14.6
China	0.7	0.3	0.5	0.5	0.1
India	0.5	0.3	0.7	0.5	0.5
Japan	0.4	0.5	0.3	0.3	0.2
All other sources	0.2	0.4	0.3	0.3	2.7
Nonsubject sources	1.8	1.4	1.9	1.6	3.5
All import sources	9.1	11.4	12.5	11.7	18.1

Source: Compiled from official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

Figure IV-1
SSA: U.S. import volumes and average unit values, 2016-18, January-September 2018, and January-September 2019



Source: Compiled from official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[8] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[9] As presented in table IV-3, imports from Canada accounted for 82.7 percent of total imports of SSA by quantity during March 1, 2018 through February 28, 2019, the most recent 12-month period for which data are available.[10]

Table IV-3
SSA: U.S. imports in the twelve-month period preceding the filing of the petition, March 2018 through February 2019

Item	March 2018 through February 2019	
	Quantity (short tons)	Share quantity (percent)
U.S. imports from.--		
Canada	54,806	82.7
Nonsubject sources	11,494	17.3
All import sources	66,300	100.0

Source: Compiled from official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

[8] 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)).

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

[10] Based on official Commerce statistics using HTS statistical reporting number 2833.11.5010.

Apparent U.S. consumption and market shares

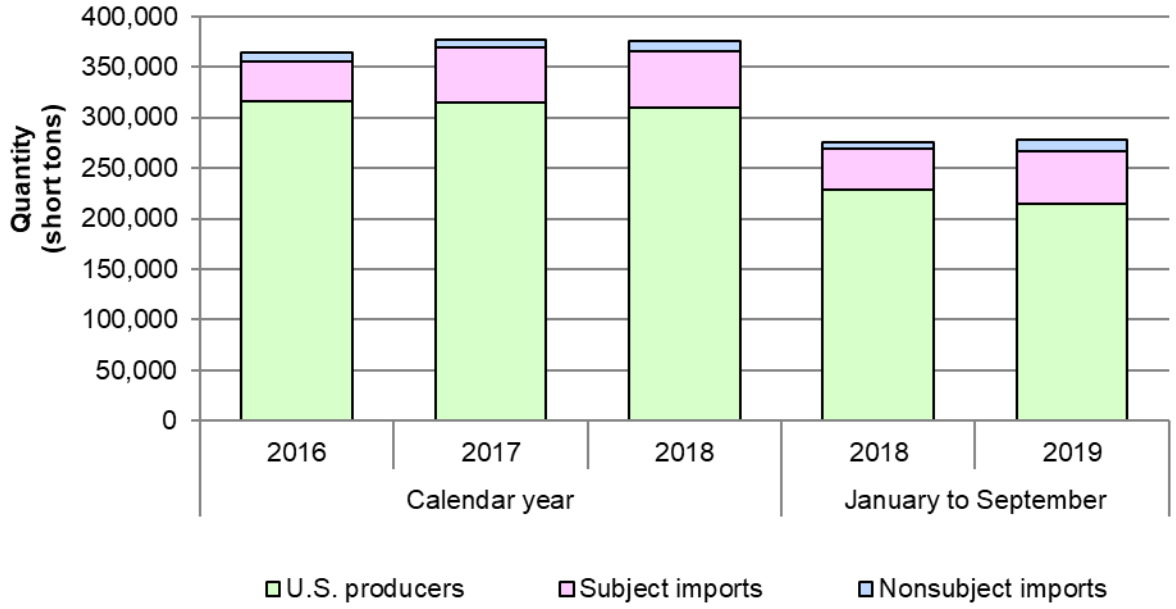
Table IV-4 and figure IV-2 present data on apparent U.S. consumption and U.S. market shares for SSA. Apparent U.S. consumption increased by 2.9 percent based on quantity between 2016 and 2018 and decreased by 8.1 percent based on value. U.S. producers' market share decreased by 4.2 percentage points between 2016 and 2018. Subject and nonsubject import market shares increased by 4.1 and 0.1 percentage points, respectively, during the same period. U.S. producers' market share was 6.0 percentage points lower in January-September 2019 than in January-September 2018. Subject and nonsubject import market shares were 3.9 and 2.1 percentage points higher during the same period, respectively.

Table IV-4
SSA: U.S. shipments of domestic product, U.S. shipments of imports, apparent U.S. consumption, and U.S. market shares, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
U.S. producers' U.S. shipments	316,552	315,374	309,939	229,079	214,985
U.S. imports from.--					
Canada	38,883	54,381	55,387	40,148	51,369
Nonsubject sources	9,335	7,676	9,865	6,339	12,230
All import sources	48,218	62,058	65,251	46,488	63,599
Apparent U.S. consumption	364,770	377,432	375,190	275,567	278,584
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	31,906	30,341	27,645	20,567	20,289
U.S. imports from.--					
Canada	4,683	5,895	5,775	4,183	5,721
Nonsubject sources	1,648	1,391	1,729	1,163	2,015
All import sources	6,332	7,285	7,504	5,347	7,735
Apparent U.S. consumption	38,238	37,626	35,149	25,913	28,024
	Share of quantity (percent)				
U.S. producers' U.S. shipments	86.8	83.6	82.6	83.1	77.2
U.S. imports from.--					
Canada	10.7	14.4	14.8	14.6	18.4
Nonsubject sources	2.6	2.0	2.6	2.3	4.4
All import sources	13.2	16.4	17.4	16.9	22.8
	Share of value (percent)				
U.S. producers' U.S. shipments	83.4	80.6	78.7	79.4	72.4
U.S. imports from.--					
Canada	12.2	15.7	16.4	16.1	20.4
Nonsubject sources	4.3	3.7	4.9	4.5	7.2
All import sources	16.6	19.4	21.3	20.6	27.6

Source: Compiled from official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

Figure IV-2
SSA: Apparent U.S. consumption, 2016-18, January-September 2018, and January-September 2019



Source: Compiled from data submitted in response to Commission questionnaires and official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

Part V: Pricing data

Factors affecting prices

Raw material costs

SSA is produced using a variety of methods, and these vary depending on whether the SSA is produced naturally or synthetically. The main raw material for natural SSA is lake brine. U.S. producers pay mineral royalties to mineral owners at a particular rate based on various factors, known as the mineral royalty rate.[1] Raw material costs make up a minimal portion of the total cost of SSA, accounting for 10.6 percent of U.S. producers' costs of goods sold in 2018. "Other factory costs" are a majority of firm's total costs, for information on these costs see part VI. Firms producing synthetic SSA produce it as a byproduct or coproduct when producing other products or as a result of recycling batteries which are disassembled to create a number of products.

Transportation costs to the U.S. market

Transportation costs for SSA shipped from Canada to the United States averaged 4.4 percent during 2018. These estimates were derived from official import data and represent the transportation and other charges on imports.[2]

U.S. inland transportation costs

Three of the seven responding U.S. producers[3] *** reported that they typically arrange transportation to their customers. All three responding U.S. producers reported that their U.S. inland transportation costs ranged from 35 to 36 percent. Only one importer (***) reported U.S. inland transportation costs; this was *** percent.

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[1] Conference transcript, p. 80 (Kane).

[2] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2018 and then dividing by the customs value based on the HTS subheading 2833.11.5010.

[3] One producer (***) reported both that it and its customers arranged transportation. The four other producers (***) reported that they did not arrange transportation. These producers had agreements with Giles/Saltex under which Giles/Saltex arranged for shipping and marketing all their SSA. ***.

***.

Pricing practices

Pricing methods

As presented in table V-1, all U.S. producers sold some SSA using contracts. U.S. producers selling to Giles/Saltex reported selling all their SSA under contracts. The other U.S. producers reported that they also sold SSA using transaction-by-transaction negotiations. Three importers reported using transaction-by-transaction negotiations, including *** which reported using both contracts and transaction-by-transaction negotiations. *** SSA and sells it using a set price list.

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

Method	U.S. producers	Importers
Transaction-by-transaction	3	3
Contract	7	1
Set price list	---	1
Other	---	---
Responding firms	7	4

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

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

U.S. producers sell the vast majority of their SSA under long-term contracts, while most of the remaining sales are sold under one-year contracts (table V-2). ***.

Table V-2
SSA: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2018

Type of sale	U.S. producers	Importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***

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

Two of three responding U.S. producers reported not typically including price renegotiation in their annual contracts, whereas all three reported their annual contracts typically fixing both price and quantity. Four of six responding U.S. producers reported allowing price renegotiation during their long-term contracts; three reported their long-term contracts fixed price, two reported that these contracts fixed quantity, and one reported that contracts fixed both price and quantity.[4] U.S. importer ***.

Three purchasers reported that they purchase product daily, eight purchase weekly, and nine purchase monthly. Twenty-four of 29 responding purchasers reported that their purchasing frequency had not changed since 2016. The other five reported purchase frequency had changed with the amount they consume; three of these reported reducing their purchases and two reported increasing their purchases. Most (15 of 26) purchasers contact 1 to 2 suppliers before making a purchase.

Sales terms and discounts

*** U.S. producers sold only on an f.o.b. basis, all of which was sold only to Giles/Saltex, while the other three responding producers reported selling on both an f.o.b. and a delivered basis. ***. The majority of U.S. producers (6 of 7) and importers (4 of 6) reported no discount policy.

Price leadership

Thirteen purchasers listed one or more price leaders.[5] Giles/Saltex was listed nine times (in four instances it was the only price leader listed), Elementis was listed three times (in each case it was the only price leader listed), SMMI was listed four times, and SVM was listed once. Purchasers reported that Giles/Saltex was a leader for a number of reasons including: it slashed prices in order to take business, it was the largest supplier, and it supports national distribution that dictate prices in regional markets. Four purchasers reported both Giles/Saltex and SMMI were price leaders. These purchasers reported that both offered competitive prices, pushed to increase prices, depressed prices due to excess supply, and competed for the purchasers' sales. One purchaser reported that Giles/Saltex dominates the eastern United States and SVM

[4] No firm reported indexing prices to raw material costs.
[5] ***.

dominates the western United States. Two purchasers reported Elementis was a price leader because it made price announcements.

Role of Giles/Saltex in price determination/setting

Purchasers were asked what the role of Giles/Saltex, a firm that markets and distributes SSA for U.S. producers ***, was in determining the price of SSA. Sixteen purchasers answered this question. Four purchasers/distributors reported Giles/Saltex competes with them or their supplier (three of these also reported purchasing from Giles/Saltex).[6] Three purchasers reported either that 1) Giles/Saltex's prices were lower than those of other suppliers, 2) it put downward pressure on prices, or 3) it set the price of SSA because it had to "move 100 percent of the material {it} represent{s}." Other responses included: Giles/Saltex and Canadian supplier's prices were similar; prices vary by region; Giles/Saltex's effect on price depends on the region, Giles/Saltex did not meet the purchaser's quality standards and therefore its prices were irrelevant; Giles/Saltex has not affected the purchaser's price; and Giles/Saltex offers supply security.

Giles/Saltex was asked to explain how the price it paid to producers were set. It reported that its "***."[7] "***

[6] One of these purchaser/distributors (***, a firm that purchases from Giles/Saltex as well as SMMI) also reported that Giles/Saltex threatened to take its customers if it did not purchase from Giles/Saltex.

[7] ***. ***.

***."

Petitioners respond that Giles/Saltex has every reason to prefer prices that are as high as it can charge to increase its profit.[8] [9]

Unsolicited offers and requests to break contract

Purchasers were asked if any U.S. or Canadian firm had provided them with unsolicited offers. Five of the 28 responding purchasers reported unsolicited offers from U.S. producers. One (***) reported that U.S. producer Elementis (a firm it had previously contacted or purchased from) had provided a bid, and one (***) reported U.S. producer SVM (a firm it had not previously contacted or purchased from) had provided a bid. Two of the 25 responding purchasers reported unsolicited bids from Canadian importers or producers. (***) reported that SMMI (a firm it had previously contacted or purchased from) had provided a bid.[10]

One of 19 responding purchasers reported that a supplier had requested that the purchaser break its contract. ***[11] reported that "***."

Price of natural versus synthetic SSA

Purchasers were also asked if the price of natural and synthetic SSA affect each other. Five of eight purchasers reported that the prices of natural and synthetic SSA did affect each other. Of the three firms reporting that natural and synthetic SSA prices did not affect each other, one, (***), reported that because natural and synthetic SSA were interchangeable, their prices were determined by demand and logistical costs. One, (***), reported that SSA behaves like a commodity so generally prices of natural and synthetic SSA are

[8] Petitioners' posthearing brief, Responses to Commissioner questions, p. 54.

[9] Respondents allege that Giles/Saltex can sell the SSA that it acquires at less than the cost of its production which allows it to sell at very low prices. Respondent SMMI's posthearing brief, Responses to Commissioner questions, pp. 8-9.

[10] ***.

[11] ***.

not different, however, synthetic SSA made as a byproduct creates excess supply and drives down prices. One, (***), reported that natural and synthetic SSA prices were competitive.

Finally, purchasers were asked if the price of natural SSA always, frequently, sometimes, or never differed from the price of synthetic SSA. Five of the nine responding purchasers reported that prices sometimes differed, one reported prices usually differed, and three reported they never differed. The purchaser reporting frequent differences stated that prices of synthetic SSA were frequently lower than that of natural SSA because synthetic SSA is a byproduct of other industry processes. Purchasers reporting there were sometimes differences reported that this was based on competition, negotiations, logistics, and the supply location.

Price data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value[12] of the following SSA products shipped to unrelated U.S. customers during January 2016-September 2019. Delivered prices were also collected and are presented in appendix D. [13] Prices were collected separately for sales to distributors and sales to end users.

Product 1.--Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons)

Product 2.--Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

Product 3.--Sodium sulfate anhydrous in 2,000-pound supersacs

Product 4.--Sodium sulfate anhydrous in 50-pound bags

[12] F.o.b. value for U.S. producers, is either the value from the final warehouse from which they sell product, or the value at the factory gate if they do not sell from a warehouse. Importers were asked to provide the value f.o.b. at the U.S. border.

[13] U.S. producers ***. This resulted in fewer tons being reported in delivered costs reported in appendix D than were reported in tables V-3 to V-10 which contain the f.o.b. values.

Seven U.S. producers and one importer provided usable f.o.b. pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[14] Pricing data reported by these firms accounted for approximately 99.8 percent of U.S. producers' U.S. shipments of SSA and 100 percent of U.S. shipments of subject imports from Canada in 2018.

Types of pricing data collected

Price data for products 1-4 to both distributors and end users are presented in tables V-3 to V-10 and figures V-1 to V-8.[15] No nonsubject country price data were requested because nonsubject import volumes were small. In addition, Giles/Saltex provided f.o.b. and delivered price data reflecting the prices at which it marketed and sold SSA. In appendix E, the f.o.b. and delivered prices reported by Giles/Saltex replace the producer prices provided by firms that use Giles/Saltex to market their products. The firms selling to Giles/Saltex were unable to report delivered prices because they did not deliver their SSA; the data reported in appendix D does not include sales by these producers. In contrast, Giles/Saltex was able to report delivered prices for its sales within the United States, as a result, there is greater pricing coverage for delivered prices in appendix E (tables E-11 to E-18) than in appendix D (tables D-1 to D-8). Most of the producers that sold only to Giles/Saltex ***. Giles/Saltex, in contrast, reported selling all four pricing products and sold products to both distributors and end users. ***. As a result, the quantities of product reported for each of the pricing products differs between f.o.b. products reported in tables V-3 to V-10 and those reported in appendix E, tables E-1 to E-8.[16]

[14] Per-unit pricing data are calculated from total quantity and total f.o.b. 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.

[15] U.S. producers reported that between *** percent of their sales were sold to end users while *** percent of their sales were to distributors (including Giles/Saltex) (table II-1). Importers of Canadian product sold between *** percent of their product to end users and between *** percent of their U.S. shipments to distributors

[16] ***.

Table V-3
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to distributors		Canada – to distributors		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table V-4
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to end users		Canada – to end users		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table V-5
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to distributors		Canada – to distributors		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table V-6
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to end users		Canada – to end users		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table V-7
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to distributors		Canada – to distributors		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Table V-8
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to end users		Canada – to end users		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Table V-9
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to distributors		Canada – to distributors		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags.

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

Table V-10
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States – to end users		Canada – to end users		
	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Price f.o.b. (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags.

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

Figure V-1
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure V-2
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to end users and landed duty paid value and quantities for imports of product 1, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure V-3
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure V-4
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to end users and landed duty paid value and quantities for imports of product 2, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure V-5
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Figure V-6
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to end users and landed duty paid value and quantities for imports of product 3, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Figure V-7
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure V-8
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to end users and landed duty paid value and quantities for imports of product 4, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Party comments regarding price data

Petitioners and respondents disagree about which set of price data should be used to examine prices. Petitioners prefer that delivered price be used and that the prices include those reported by Giles/Saltex be used rather than the prices reported by firms selling to Giles/Saltex. Respondents prefer that f.o.b. prices be used and that the prices be those of the U.S. producers rather than prices reported by Giles/Saltex. Their arguments are discussed below.

F.o.b. vs delivered

Petitioners argue that delivered prices should be used rather than f.o.b. prices. First SSA is normally sold on a delivered basis. Therefore, they argue that, first, f.o.b. prices are constructed prices while delivered prices are actual prices.[17] Second, delivered cost represents a large share of the total cost of SSA to purchasers. Third, purchasers typically make their decisions based on delivered prices rather than f.o.b. prices.[18] Fourth, petitioners claim that there are problems with SMMI's f.o.b. price data (discussed in the next subsection) and thus its f.o.b. prices should not be used.[19]

Respondents argue that f.o.b. prices should be used rather than delivered prices. First, the Commission normally examines f.o.b. prices.[20] Second, f.o.b. prices better reflect the price basis the producers compete on. The difference between the f.o.b. price and the delivered price, in contrast, is mainly the distance product is shipped and thus the location of the producers relative to that of the purchasers.[21] Respondents state that the costs of shipping within the United States[22] is not relevant to the question of dumping.[23] Third, some purchases are made on an f.o.b. basis and purchasers are interested in the f.o.b. prices.[24] To the extent that purchases are made on an f.o.b. basis, delivered prices still must be estimated. Fourth, respondents note that the petitioners did not request that the commission collect delivered price data until after the preliminary f.o.b. price data showed that Canadian product mainly

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[17] Petitioners' prehearing brief, pp. 6-7; and Petitioners' response to initial questions, testimony of Travis Pope and Thomas Rodgers, pp. 2-3.

[18] Petitioners' prehearing brief, pp. 20-21.

[19] Petitioners' prehearing brief, pp. 28-33.

[20] SMMI's response to initial questions, p. 40.

[21] Government of Canada's posthearing brief, Response to Commissioner questions, p. 3.

[22] SMMI's response to initial questions, p. 42.

[23] SMMI's response to initial questions, pp. 30-33

[24] SMMI's response to initial questions p. 44.

(*continued*...)

oversold U.S. product thus their preference for delivered prices was a result of their inability to find underselling in f.o.b. price data.[25]

Quality of the import f.o.b. price data

Petitioners note that SMMI's reported f.o.b. prices are higher than its reported Customs value although the quantities reported are similar.[26] They claim that this indicates that SMMI is overstating its f.o.b. prices.[27] Petitioners also claim that the fact that SMMI revised its f.o.b. price data when it was requested to do so by the Commission indicates that SMMI's f.o.b. price data is just a constructed value.[28]

SMMI agrees that its Customs values are less than its f.o.b. prices. However, SMMI reports that this is merely a technical issue rather than showing an error in SMMI's f.o.b. price data. SMMI reported that Customs values are calculated using a different methodology than its f.o.b. values because most of the product it imports is sold out of warehouses in the United States. The selling price for these products is not known when it is imported and therefore cannot be used to determine Customs value. In addition, SMMI states that, because it had more time to determine f.o.b. quantities and values in the final phase of this investigation, it was able to improve the quality of its price data in the final phase of the investigation. SMMI states its data were verified by Commerce, and that its f.o.b. quantities and values are correct.[29]

Use of Giles/Saltex prices or price data of producers selling to Giles/Saltex

Petitioners explain that prices reported by Giles/Saltex should be used rather than the prices of the firms selling to Giles/Saltex because this is the only method to examine the full data on sales to end-users and to provide price data at a comparable level of trade to that of imports.[30] Giles/Saltex and CNR's products are sold together at the same time and by the same salespersons.[31] The firms selling to Giles/Saltex do not sell directly to the market.[32] Giles/Saltex

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[25] SMMI's prehearing brief, p. 36.

[26] Petitioners' prehearing brief, pp. 29-33.

[27] Petitioners' prehearing brief, pp. 28-33.

[28] Petitioners' prehearing brief, p. 28.

[29] SMMI's hearing testimony of Brett Routledge, pp. 1-3 and SMMI's response to initial questions, pp. 23-25

[30] Petitioners' response to initial questions testimony of Travis Pope and Thomas Rodgers, p. 3-4.

[31] Petitioners' response to initial questions, p. 3.

[32] Petitioners' hearing testimony of Guy Wrenn; Petitioners' posthearing brief, Responses to Commissioner questions, pp. 20-21.

(*continued*...)

is a marketer of SSA rather than a distributor because it is obligated to move material while a distributor is not.[33]

Respondents assert that the actual prices of the U.S. producers should be used. They claim that Giles/Saltex acts as a distributor for some U.S. producers, however, the respondent also sells to distributors and the sales price of SMMI's distributors would be on the same level of trade with the sales as U.S. producers' sales to Giles/Saltex.[34]

Focus on the different pricing products

Petitioners state that the Commission should focus on pricing product 1 sold to end users at delivered prices.[35] Petitioners explain that because it is the largest volume product, it is a particularly important product for domestic producers. Product 1, according to petitioners, is where prices are particularly competitive because large end users are most able to negotiate price reductions. Petitioners state that delivered product 1 prices to end users are more internally consistent than other prices and are not distorted by level-of-trade issues.[36] According to petitioners, product 1 is the most important product because the largest amount of domestically produced SSA is sold as product 1.[37] Petitioners state that there are problems with SMMI's product 2 price data.[38]

Respondents state that the Commission should not focus exclusively on any product nor on the delivered prices as discussed above. SMMI notes that the petitioners did not focus on this product as being more important than other products until the price data indicated that it was the product that best supported petitioners' case.[39] Respondents deny that there is any evidence of level-of-trade problems in the price data for product 2.[40]

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[33] Petitioners' posthearing brief, Responses to Commissioner questions, p. 54.

[34] SMMI's response to initial questions, p. 21-22 and 33-34.

[35] Petitioners' prehearing brief, p. 22.

[36] Petitioners' prehearing brief, pp. 22-23.

[37] Petitioners' response to initial questions, pp. 27-28.

[38] Petitioners' responses to initial questions, pp. 26-27. Petitioners' reasons for arguing that the Commission should not rely on product 2 prices include these prices tend to reflect the higher prices in the northwest region, differences in customers, transportation costs are a higher share of value than for product 1, and prices are less similar than those for product 1.

[39] SMMI's response to initial questions, p. 26-29

[40] SMMI's response to initial questions, p. 36; SMMI's posthearing brief, Response to Commissioner questions, pp. 16-20.

Price trends

Table V-11 summarizes the f.o.b. price trends during January 2016-September 2019, by country, by product, and by type of purchaser. As shown in the table, during January 2016-September 2019 domestic prices increased in five instances, ranging from 6.4 to 88.9 percent, and domestic prices decreased in three instances, ranging from 2.0 to 9.0 percent. Import prices increased in three instances, ranging from 1.8 to 78.3 percent, and import prices decreased in four instances, ranging from 2.9 to 16.6 percent.

Table V-11
SSA: Summary of weighted-average f.o.b. prices for products 1-4 sales to distributors and to end users from the United States and Canada

Item	Number of quarters	Low price/cost (per short ton)	High price/cost (per short ton)	Change in price/cost (percent)
Product 1 to distributors:				
United States	***	***	***	***
Canada	***	***	***	***
Product 1 to end users:				
United States	***	***	***	***
Canada	***	***	***	***
Product 2 to distributors:				
United States	***	***	***	***
Canada	***	***	***	***
Product 2 to end users:				
United States	***	***	***	***
Canada	***	***	***	***
Product 3 to distributors:				
United States	***	***	***	***
Canada	***	***	***	***
Product 3 to end users:				
United States	***	***	***	***
Canada	***	***	***	***
Product 4 to distributors:				
United States	***	***	***	***
Canada	***	***	***	***
Product 4 to end users:				
United States	***	***	***	***
Canada	***	***	***	***

Note: Percentage change from the first quarter of 2016 to the third quarter 2019. No price data were available for Canadian product 1 sold to distributors in the third quarter of 2019. Canadian product 1 price to distributors increased *** percent from the first quarter of 2016 and the second quarter of 2019.

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

Price comparisons

As shown in table V-12, f.o.b. prices for product imported from Canada were below those for U.S.-produced product in 26 of 117 instances (*** short tons); margins of

underselling ranged from 0.3 to 56.3 percent. In the remaining 91 instances (*** short tons), prices for product from Canada were between 0.5 and 270.8 percent above prices for the domestic product.

Table V-12
SSA: Instances of underselling/overselling and the range and average of margins for f.o.b. data, by country, January 2016-September 2019

Source	Underselling				
	Number of quarters	Quantity (short tons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Subtotal - to distributors	***	***	***	***	***
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Subtotal - to end users	***	***	***	***	***
Total, underselling	***	***	***	***	***
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (short tons)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Subtotal - to distributors	***	***	***	***	***
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Product 4	***	***	***	***	***
Subtotal - to end users	***	***	***	***	***
Total, overselling	***	***	***	***	***

Note: These data include only quarters in which there is a comparison between the U.S. and subject product. In three potential comparisons (a total of *** short tons), there were no prices reported for Canadian product.

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

Lost sales and lost revenue

In the preliminary phase of the investigation, the Commission requested that U.S. producers of SSA report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of SSA from Canada during 2016-18. Three U.S. producers submitted lost sales and lost revenue allegations. The three responding U.S. producers identified three firms where they lost sales or revenue (one allegation consisted of lost sales allegations, one consisted of lost revenue allegations, and two consisted of both types of allegations).

In the final phase of the investigation, four of the five responding U.S. producers reported that they had to either reduce prices or roll back announced price increases, and three firms reported that they had lost sales.

Staff contacted 46 purchasers and received responses from 29 purchasers.[41] Responding purchasers reported purchasing or importing one million short tons of SSA during January 2016-September 2019. Table V-13 reports these purchases and imports for 2016-18 and the changes in purchase patterns that occurred between 2016 and 2018.

Petitioners also offered a number of examples in which CNR was required to reduce prices due to competition from SMMI. [42]

[41] One purchaser (***), submitted lost sales lost revenue survey responses in the preliminary phase but did not submit purchaser questionnaire responses in the final phase.

[42] Petitioners' posthearing brief, responses to commissioner questions, pp. 19-20.

Table V-13
SSA: Purchasers' responses to purchasing patterns

Purchaser	Purchases/imports in 2016- 2018 (short tons)			Change in domestic share (pp, 2016-18)	Change in Canadian share (pp, 2016-18)
	Domestic	Canada	All other		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

Note: Includes all other sources and unknown sources.
Note: Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or Canadian imports between first and last years.

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

Of the 28 responding purchasers, 20 reported that, since 2016, they had purchased SSA imported from Canada instead of U.S.-produced product. Four of these purchasers reported that subject import prices were lower than prices for U.S.-produced product, and two of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Two purchasers estimated purchasing ***

short tons of SSA from Canada purchased instead of domestic product (table V-14).[43] Purchasers identified the following as non-price reasons for purchasing imported rather than U.S.-produced product: maintaining security of supply, meeting specifications/compliance with required standard, product quality, and short term reduced local supply.

[43] ***.

Table V-14
SSA: Purchasers’ responses to purchasing subject imports instead of domestic product

Purchaser	Purchased imports instead of domestic (Y/N)	Imports priced lower	If purchased imports instead of domestic, was price a primary reason		
			Yes/ No	If Yes, quantity purchased instead of domestic (short tons)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued on next page

Table V-14—Continued
SSA: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Purchased imports instead of domestic	Imports priced lower	If purchased imports instead of domestic, was price a primary reason		
			Yes/no	If Yes, quantity purchased instead of domestic (short tons)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--20; No--8	Yes--4; No--14	Yes--2; No--16	***	

Note: ***.
Note: ***.

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

Of the 29 responding purchasers, 3 reported that U.S. producers had reduced prices in order to compete with lower-priced imports from Canada; 14 reported that they had not and 13 reported that they did not know (table V-15). The reported estimated price reductions ranged from 7 to 35 percent. In describing the price reductions, ***, and

***.

Table V-15
SSA: Purchasers’ responses to U.S. producer price reductions

Purchaser	U.S. producers reduced priced to compete with subject imports	If U.S. producers reduced prices	
		Estimated U.S. price reduction (percent)	Additional information, if available
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
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***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total/ average	Yes--3; No--14	***	

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

Part VI: Financial experience of U.S. producers

Background

Seven U.S. producers provided SSA financial results data to the Commission: CNR and SVM (natural SSA primary and co-product producers, respectively), Elementis (synthetic SSA co-product producer), and East Penn, Eco-Bat, Evonik, and GEO (synthetic SSA byproduct producers).[1] Elementis and Evonik are part of larger, publicly held corporations. The remaining U.S. producers are privately held.[2]

CNR is the only U.S. producer whose operations are focused primarily on SSA. In contrast, Elementis and SVM are co-product producers with SSA accounting for a *** share of their overall operations.[3] The remaining U.S. producers manufacture SSA as a byproduct of primary manufacturing operations.[4]

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[1] With the exception of ***, U.S. producers reported their SSA financial results on the basis of U.S. generally accepted accounting principles (GAAP). U.S. producers reported their financial results for calendar-year periods.

On February 5-6, 2020, staff conducted a verification of the financial section, as well as selected elements of the trade and pricing sections of SVM's U.S. producer questionnaire. Data changes pursuant to verification are reflected in this and other relevant sections of this report. Verification report, p. 2.

[2] USITC preliminary-phase notes.

[3] SSA sales accounted for *** percent, *** percent, and *** percent, respectively, of *** total value of 2018 total sales. *** U.S. producer questionnaires, response to III-6.

[4] With regard to the distinction between co-products (or joint products) and byproducts from an accounting perspective, "Joint products, also called main products, result from those manufacturing operations in which companies simultaneously produce two or more products of significant value. Byproducts are merely incidental products resulting from the processing of another product. The distinction between joint and byproducts is largely dependent on the market value of the products. Companies produce joint products in larger quantities {than byproducts}. Joint products have larger market values and make a more meaningful contribution to revenue than byproducts." Cost Accounting: Using a Cost Management Approach, L. Gayle Rayburn, Irwin, 1993, pp. 258-259. Inherent in this description is the notion that byproducts have value, albeit less than corresponding primary or co-products.

Primary and co-products are routinely assigned fully-absorbed manufacturing costs, whereas byproducts are not. As such, measuring product-specific financial results through standard levels of profitability is only applicable to primary and co-product operations. Byproduct financial results, as presented in this report, are limited to net byproduct revenue, which represents byproduct revenue minus additional costs/expenses required to sell the byproduct commercially.

On an overall basis, the natural and synthetic primary and co-product sales of CNR, Elementis, and SVM represents *** percent of total reported SSA sales quantity. Byproduct SSA accounts for the remaining *** percent.[5]

Operations on SSA

Table VI-1 presents income-and-loss data for U.S. producers' natural and synthetic SSA primary and co-product operations. Corresponding changes in average per short ton values and variance analysis are presented in table VI-2 and table VI-3, respectively.[6] Selected financial information by firm is presented in table VI-4. Financial results information specific to synthetic byproduct SSA operations is presented in table VI-5.[7] Corresponding changes in average per short ton values and selected financial results information by firm are presented in tables VI-6 and VI-7, respectively.

[5] In this context, "overall" refers to combined natural and synthetic SSA primary and co-product sales and byproduct SSA sales. For the period as a whole, *** accounted for the largest company-specific share of overall sales quantity (*** percent) followed by *** (*** percent) and *** (*** percent). Company-specific byproduct shares of overall SSA sales quantity for the period ranged from a low of *** percent (***) to a high of *** percent (***). In this section of the report, tables and accompanying narrative generally refer to total category-specific amounts (e.g., total natural and synthetic SSA primary and co-product versus total synthetic SSA byproduct), as opposed to overall SSA.

[6] The Commission's traditional variance analysis is calculated in three parts: sales variance, cost of goods sold ("COGS") variance, and selling, general, and administrative ("SG&A") expenses variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expenses variances), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. As summarized at the bottom of the table, the price variance is from sales, the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expenses variances. The Commission's variance analysis is generally more meaningful when product mix and/or customer mix remains the same throughout the period. Reported changes in product mix and/or customer mix (e.g., see footnote 17) do not appear substantial enough to undermine the utility of the variance analysis.

[7] As presented in this section of the report, "financial results" for synthetic SSA byproduct operations reflect the net difference between byproduct revenue and the costs necessary to further process and sell byproduct SSA commercially (see footnote 4).

Table VI-1
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
Total net sales	430,415	417,411	429,232	329,018	282,258
	Value (1,000 dollars)				
Total net sales	34,313	29,305	29,084	22,195	23,262
Cost of goods sold.--					
Raw materials	3,709	3,547	3,869	2,953	2,836
Direct labor	4,460	4,319	4,436	3,184	3,658
Other factory costs	27,476	26,603	28,133	20,815	19,851
Total COGS	35,646	34,469	36,438	26,952	26,345
Gross profit or (loss)	(1,332)	(5,163)	(7,355)	(4,757)	(3,084)
SG&A expense	2,317	2,268	2,333	1,791	2,015
Operating income or (loss)	(3,649)	(7,431)	(9,688)	(6,548)	(5,099)
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Net income or (loss)	(3,643)	(7,472)	(9,647)	(6,580)	(4,609)
Depreciation/amortization	2,517	2,885	2,976	2,417	2,564
Estimated cash flow from operations	(1,126)	(4,587)	(6,671)	(4,163)	(2,045)
	Ratio to net sales (percent)				
Cost of goods sold.--					
Raw materials	10.8	12.1	13.3	13.3	12.2
Direct labor	13.0	14.7	15.3	14.3	15.7
Other factory costs	80.1	90.8	96.7	93.8	85.3
Average COGS	103.9	117.6	125.3	121.4	113.3
Gross profit or (loss)	(3.9)	(17.6)	(25.3)	(21.4)	(13.3)
SG&A expense	6.8	7.7	8.0	8.1	8.7
Operating income or (loss)	(10.6)	(25.4)	(33.3)	(29.5)	(21.9)
Net income or (loss)	(10.6)	(25.5)	(33.2)	(29.6)	(19.8)
	Ratio to total COGS (percent)				
Cost of goods sold.--					
Raw materials	10.4	10.3	10.6	11.0	10.8
Direct labor	12.5	12.5	12.2	11.8	13.9
Other factory costs	77.1	77.2	77.2	77.2	75.3
Average COGS	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table VI-1—Continued
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Unit value (dollars per short ton)				
Total net sales	79.72	70.21	67.76	67.46	82.41
Cost of goods sold.-- Raw materials	8.62	8.50	9.01	8.97	10.05
Direct labor	10.36	10.35	10.33	9.68	12.96
Other factory costs	63.84	63.73	65.54	63.26	70.33
Average COGS	82.82	82.58	84.89	81.92	93.34
Gross profit or (loss)	(3.10)	(12.37)	(17.13)	(14.46)	(10.93)
SG&A expense	5.38	5.43	5.44	5.44	7.14
Operating income or (loss)	(8.48)	(17.80)	(22.57)	(19.90)	(18.07)
Net income or (loss)	(8.46)	(17.90)	(22.48)	(20.00)	(16.33)
	Number of firms reporting				
Data	3	3	3	3	3
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***

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

Table VI-2
SSA: Changes in average unit values of U.S. producers' natural and synthetic (primary and co-product) operations, 2016-18, January-September 2018, and January-September 2019

Item	Between calendar years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Change in AUVs (dollars per short ton)			
Total net sales	(11.96)	(9.51)	(2.45)	14.95
Cost of goods sold.-- Raw materials	0.40	(0.12)	0.52	1.07
Direct labor	(0.03)	(0.02)	(0.01)	3.29
Other factory costs	1.71	(0.10)	1.81	7.07
Average COGS	2.07	(0.24)	2.31	11.42
Gross profit or (loss)	(14.04)	(9.27)	(4.76)	3.53
SG&A expense	0.05	0.05	0.00	1.70
Operating income or (loss)	(14.09)	(9.33)	(4.77)	1.84
Net income or (loss)	(14.01)	(9.44)	(4.57)	3.67

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

Table VI-3
SSA: Variance analysis on operations of U.S. producers' natural and synthetic (primary and co-product) operations, 2016-18, January-September 2018, and January-September 2019

Item	Between calendar years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Value (1,000 dollars)			
Net sales:				
Price variance	(5,136)	(3,971)	(1,052)	4,221
Volume variance	(94)	(1,037)	830	(3,154)
Net sales variance	(5,230)	(5,008)	(222)	1,067
COGS:				
Cost variance	(890)	100	(993)	(3,224)
Volume variance	98	1,077	(976)	3,830
COGS variance	(792)	1,177	(1,969)	606
Gross profit variance	(6,022)	(3,831)	(2,191)	1,673
SG&A expenses:				
Cost/expense variance	(23)	(21)	(1)	(479)
Volume variance	6	70	(64)	255
Total SG&A expense variance	(17)	49	(66)	(224)
Operating income variance	(6,039)	(3,782)	(2,257)	1,449
Summarized (at the operating income level) as:				
Price variance	(5,136)	(3,971)	(1,052)	4,221
Net cost/expense variance	(913)	79	(994)	(3,703)
Net volume variance	10	110	(210)	931

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

Table VI-4
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Total net sales (short tons)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production sales volume	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total net sales quantity	430,415	417,411	429,232	329,018	282,258
	Total net sales (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production sales value	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total net sales value	34,313	29,305	29,084	22,195	23,262

Table continued on next page.

Table VI-4—Continued
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Cost of goods sold (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average COGS	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total COGS	35,646	34,469	36,438	26,952	26,345
	Gross profit or (loss) (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production gross profit or (loss)	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total gross profit or (loss)	(1,332)	(5,163)	(7,355)	(4,757)	(3,084)
	SG&A expenses (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production SG&A expenses	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total SG&A expenses	2,317	2,268	2,333	1,791	2,015
	Operating income or (loss) (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production operating income or (loss)	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total operating income or (loss)	(3,649)	(7,431)	(9,688)	(6,548)	(5,099)
	Net income or (loss) (1,000 dollars)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production net income or (loss)	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Total net income or (loss)	(3,643)	(7,472)	(9,647)	(6,580)	(4,609)
	COGS to net sales ratio (percent)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average COGS to net sales ratio	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average COGS to net sales ratio	103.9	117.6	125.3	121.4	113.3

Table continued on next page.

Table VI-4—Continued
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Gross profit or (loss) to net sales ratio (percent)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production gross profit or (loss) ratio	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average gross profit or (loss) to net sales ratio	(3.9)	(17.6)	(25.3)	(21.4)	(13.3)
	SG&A expense to net sales ratio (percent)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production SG&A expenses ratio	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average SG&A expense to net sales ratio	6.8	7.7	8.0	8.1	8.7
	Operating income or (loss) to net sales ratio (percent)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production operating profit or (loss) ratio	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average operating income or (loss) to net sales ratio	(10.6)	(25.4)	(33.3)	(29.5)	(21.9)
	Net income or (loss) to net sales ratio (percent)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production net profit or (loss) ratio	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average net income or (loss) to net sales ratio	(10.6)	(25.5)	(33.2)	(29.6)	(19.8)
	Unit net sales value (dollars per short ton)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit sales value	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit net sales value	79.72	70.21	67.76	67.46	82.41

Table continued on next page.

Table VI-4—Continued
SSA: Financial results of U.S. producers' natural and synthetic (primary and co-product) operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Unit raw materials (dollars per short ton)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit raw materials	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit raw materials	8.62	8.50	9.01	8.97	10.05
	Unit direct labor (dollars per short ton)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit direct labor	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit direct labor	10.36	10.35	10.33	9.68	12.96
	Unit other factory costs (dollars per short ton)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit other factory costs	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit other factory costs	63.84	63.73	65.54	63.26	70.33
	Unit conversion costs (dollars per short ton)[1]				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit COGS	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit COGS	74.20	74.08	75.88	72.94	83.29
	Unit cost of goods sold (dollars per short ton)				
CNR (natural primary product)	***	***	***	***	***
SVM (natural co-product)	***	***	***	***	***
Natural production average unit COGS	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Average unit COGS	82.82	82.58	84.89	81.92	93.34

[1] Conversion costs are direct labor and other factory costs combined.

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

Table VI-5
SSA: Financial results of U.S. producers' byproduct operations, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Quantity (short tons)				
Total byproduct revenue quantity	***	***	***	***	***
	Value (1,000 dollars)				
Total byproduct revenue value	***	***	***	***	***
Separable byproduct costs/expenses: Manufacturing/processing costs	***	***	***	***	***
SG&A expenses	***	***	***	***	***
Total separable byproduct costs/expenses	***	***	***	***	***
Net byproduct revenue	***	***	***	***	***
	Ratio to net sales (percent)				
Separable byproduct costs/expenses: Manufacturing/processing costs	***	***	***	***	***
SG&A expenses	***	***	***	***	***
Total separable byproduct costs/expenses	***	***	***	***	***
Net byproduct revenue	***	***	***	***	***
	Ratio to total separable byproduct costs/expenses				
Separable byproduct costs/expenses: Manufacturing/processing costs	***	***	***	***	***
SG&A expenses	***	***	***	***	***
	Unit value (dollars per short ton)				
Total net sales	***	***	***	***	***
Separable byproduct costs/expenses: Manufacturing/processing costs	***	***	***	***	***
SG&A expenses	***	***	***	***	***
Total separable byproduct costs/expenses	***	***	***	***	***
Net byproduct revenue	***	***	***	***	***
	Number of firms reporting				
Data	4	4	4	4	4
Negative net byproduct revenue	***	***	***	***	***

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

Table VI-6
SSA: Changes in U.S. producers' average unit byproduct values, 2016-18, January-September 2018, and January-September 2019

Item	Between calendar years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Change in AUVs (dollars per short ton)			
Total net sales	***	***	***	***
Separable byproduct costs/expenses: Manufacturing/processing costs	***	***	***	***
SG&A expenses	***	***	***	***
Total separable byproduct costs/expenses	***	***	***	***
Net byproduct revenue	***	***	***	***

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

Table VI-7
SSA: Financial results of U.S. producers' byproduct operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Byproduct quantity (short tons)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Total byproduct revenue quantity	***	***	***	***	***
	Byproduct revenue (1,000 dollars)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Total byproduct revenue	***	***	***	***	***
	Net byproduct revenue (1,000 dollars)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Total net byproduct revenue	***	***	***	***	***
	Unit byproduct revenue (dollars per short ton)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Average unit byproduct revenue	***	***	***	***	***

Table continued on next page.

Table VI-7—Continued
SSA: Financial results of U.S. producers' byproduct operations, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Unit manufacturing/processing costs/expenses (dollars per short ton)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Average unit mfg./processing costs	***	***	***	***	***
	Unit SG&A expenses (dollars per short ton)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Average unit SG&A expenses	***	***	***	***	***
	Unit net byproduct revenue (dollars per short ton)				
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Average unit net byproduct revenue	***	***	***	***	***

[1] ***.

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

Revenue

The substantial majority of SSA sales (natural and synthetic primary and co-product SSA operations) are commercial sales with relatively small amounts classified as transfer sales to related firms.[8] Given the predominance of commercial sales, a relatively *** share of which reflects exports, a single revenue line item is presented in the relevant category-specific tables above.[9]

[8] ***. *** U.S. producer questionnaire, response to II-9.

[9] Giles/Saltex sells byproduct SSA to end users on behalf of the byproduct producers (see also footnotes 14 and 15).

Quantity

The two categories of overall SSA sales, natural and synthetic SSA primary and co-product and synthetic SSA byproduct, followed different directional patterns of sales quantity during most of the period. Total primary and co-product sales quantity declined in 2017, increased in 2018 to a level close to but lower than 2016 sales quantity, and then was lower in January-September 2019 compared to January-September 2018. Total byproduct sales quantity increased in 2017, declined in 2018, and then was lower in January-September 2019 compared to January-September 2018.

Within each category and for most of the period, U.S. producers were mixed in terms of the directional pattern and magnitude of sales quantity change. Among the primary and co-product producers, *** reported declines in total sales quantity throughout the full-year and interim period. *** total sales quantity, declined in 2017, increased in 2018, and then was lower in January-September 2019 compared to January-September 2018.[10] *** sales quantity, declined somewhat in 2017, increased in 2018, and then was lower in in January-September 2019 compared to January-September 2018.

Although declining notably in 2017, *** export shipments as a share of its total shipments remained at a similar level for most of the period. In contrast, *** exports as a share of its total shipments increased throughout much of the period and reached its highest level in January-September 2019. *** exports were minimal throughout the period.[11] [12]

[10] ***. *** U.S. producer questionnaire, response to II-2. ***. Staff correspondence with ***, January 22, 2020.

[11] *** exports as a share of total shipments ranged from *** percent (2017) to *** percent (2016). *** exports as a share of total shipments ranged from *** percent (2016) to *** percent (January-September 2019). *** exports as a share of total shipments ranged from *** percent (2017 and January-September 2019) to *** percent (January-September 2018).

[12] ***. Verification report, p. 4.

Value

Among product and co-product producers, *** reported the lowest company-specific average per short ton sales values, while *** and *** reported higher average per short ton sales values that were generally in a similar range. Company-specific differences in average sales value were primarily attributed to underlying freight costs with product and customer mix not considered important explanatory factors.[13]

Average per short ton byproduct revenue was lower compared to primary and co-product average sales values and, for at least parts of the period, was *** for most byproduct producers.[14] Since byproduct producers do not sell SSA directly into the market, instead selling through Giles/Saltex,[15] average byproduct revenue is not directly comparable to average primary and co-product revenue.

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[13] Petitioners' postconference brief, p. 21 n 56.

[14] During the staff conference, members of the petitioners' panel provided testimony that the byproduct revenue received by byproduct producers is analogous to revenue sharing and is not a fixed amount. As described by a Giles/Saltex official, "Our agreement with our producers is that of a revenue-sharing, where our compensation is based on how high the average sales price is." Conference transcript, p. 29 (Wrenn). Further discussion suggested that the manner in which the byproduct producers reported revenue is incorrect inasmuch as it appears to reflect a flat amount for revenue. Conference transcript, p. 112 (Rogers). Petitioners' postconference brief, p. 21 (footnote 66). As shown in table VI-6, *** of the byproduct producers appear to have reported revenue in a *** manner; i.e., average per short ton revenue appears to reflect *** throughout the period.

[15] As described by a Giles/Saltex official, "We are responsible for all sales and prices as well as directing where each ton of production is shipped as it leaves the co-production (sic) facilities, responsible for all rail car costs and lease, as well as other transportation costs. We have a fiduciary responsibility to our producers to move 100 percent of their production in a way that is best for them, and a large part of that is selling at the highest prices the market can support." Conference transcript, p. 29 (Wrenn).

In response to Commissioner hearing questions, petitioners stated that "Giles and Saltex are considered Marketers. A distributor is just someone who . . . sells a product but has no obligation to move material. ***. Petitioners' posthearing brief (Responses to Commissioner Questions), p. 54. Note: Consistent with this general understanding, the Commission's final-phase U.S. producer questionnaire instructed byproduct producers to report byproduct revenue net of any variable adjustments; i.e., the byproduct revenue reported by byproduct producers does not directly match the sales value paid by the ultimate customer.

When considering subsets of revenue, *** average export sales values were lower, by similar amounts, compared to corresponding average U.S. commercial sales. *** attributed the differences between its average U.S. commercial shipment value and its average export value to the types of transportation costs incurred and differences in the underlying markets.[16] [17] *** provided a similar explanation regarding the difference between its average U.S. commercial shipment value and export value.[18] ***, whose export

[16] ***. Petitioners' postconference brief, p. 21 n 56. ***. Staff-correspondence with ***, January 22, 2020.

[17] ***. Verification report, p. 4 (note 7).

[18] ***. Email with attachment from *** to USITC staff, January 15, 2020.

shipments were intermittent and not a substantial share of its total sales, reported a somewhat different pattern, as compared to ***: its average export value in 2016 was only somewhat lower than its corresponding average U.S. commercial sales value, while its average export value in 2018 was higher.[19]

Cost of goods sold and gross profit or loss

As noted previously, CNR and SVM are both natural SSA producers but differ in terms of producing SSA as a primary product (CNR) or as a co-product (SVM). Synthetic producer Elementis manufactures SSA as a co-product.[20] As co-product producers, the SSA activity of Elementis and SVM reflect considerations related to both SSA and other products. In this regard, ***.[21] In contrast, ***.[22] As a primary producer, CNR's operations are largely determined by SSA production and related activity.

[19] ***. Email with attachment from *** to USITC staff, January 15, 2020.

[20] SVM identified the following co-products relevant to its SSA production: ***. SVM U.S. producer questionnaire, response to III-4c. Elementis identified the following co-product relevant to SSA production: ***. Elementis U.S. producer questionnaire, response to III-4c.

[21] *** U.S. producer questionnaire, response to III-5b. ***. Ibid.

[22] *** U.S. producer questionnaire, response to III-5b. ***. Ibid.

Raw materials

For natural SSA primary and co-product producers CNR and SVM, brine is a primary raw material with underlying costs including payments for corresponding mineral rights and royalties.[23] [24] For natural production, the share of raw material costs to total cost of goods sold (COGS) is relatively low, ranging from *** percent (2018 – full-year and interim period) to *** percent (2016).[25] Elementis, a synthetic SSA co-product producer, reported raw material cost shares ranging from *** percent (2017) to *** percent (January-September 2018).[26] Underlying raw material costs reported by Elementis include ***.[27]

Direct labor and other factory costs

For primary and co-product producers, direct labor costs, which as a share of total COGS ranged from 12.2 percent (2018) to 13.9 percent (January-September 2019), were described as a fixed component that does not fluctuate substantially with production.[28] Other factory costs, ranging from 75.3 percent (January-September 2019) to 77.2 percent (2017, 2018 – full year and interim period), account for the largest share of total COGS. This relatively large share is generally consistent with the description of SSA production as being a capital-intensive manufacturing process.[29] Underlying other factory costs reportedly did not change substantially

[23] Conference transcript, p. 80 (Kane), p. 99 (Ford). Verification report, p. 5.

[24] The brine used by CNR and SVM is different in terms of mineral concentration, which generally helps to explain why SVM produces SSA along with multiple other co-products and CNR produces SSA as a primary product. Conference transcript, pp. 97-98 (Kane, Ford).

[25] Calculated based on information reported in CNR's and SVM's U.S. producer questionnaires, response to III-10.

[26] Calculated based on information reported in Elementis' U.S. producer questionnaire, response to III-11.

[27] *** U.S. producer questionnaire, response to III-4b.

[28] Conference transcript, p. 100 (Kane).

[29] As described by a CNR company official, "Sodium sulfate production is a highly capital intensive business. The equipment we use to produce, store, package, and ship the product is expensive and requires continuous investment or maintenance and repairs. As a result, the fixed cost of production sites and facilities, as well as the cooling facilities are significant. To cover these costs and to remain a viable business, sodium sulfate producers must maintain capital utilization levels, which must, at a minimum, allow for the recoupment of costs." Conference transcript, p. 21 (Kane). As further described by CNR, ***. CNR U.S. producer questionnaire, response to III-15.

during the period and were described as primarily representing ***.[30]

*** average unit conversion costs (combined direct labor and other factory costs) were in the same general range throughout most of the period with *** reporting a higher average conversion cost than ***.[31] *** average conversion cost was the lowest on a company-specific basis.

The difference between *** average conversion costs narrowed at the end of the period due to the relatively large *** in *** average conversion cost in January-September 2019. According to ***, this increase reflects ***.[32] Notwithstanding some improvement in its January-September 2019 capacity utilization as compared to January-September 2018, *** average conversion cost was *** in January-September 2019 compared to January-September 2018.[33]

Cost of goods sold

Table VI-4 shows that *** reported the lowest average per short ton COGS throughout the period, followed by *** and ***.[34] Of the two natural producers, ***

[30] Petitioners' postconference brief (Exhibit 1), p. 13.

[31] While also presented separately in table VI-4, combining direct labor and other factory costs into "conversion costs" can improve direct comparability due to company-specific differences in cost classification.

[32] Staff correspondence with ***, January 22, 2020. ***. Verification report, p. 5.

[33] A CNR company official confirmed at the staff conference that, given the high level of fixed costs, average SSA manufacturing costs do fluctuate in conjunction with changes in production. Conference transcript, pp. 99-100 (Kane). ***. Email with attachment from *** to USITC staff, January 15, 2020.

[34] ***. Email with attachment from *** to USITC staff, January 15, 2020.

average COGS was the lowest and remained in a relatively narrow range during the full-year period. *** average COGS declined to its lowest level in 2017 and then increased in 2018, corresponding with higher ***.[35] In January-September 2019, *** average COGS increased, reflecting, as noted above, lower capacity utilization due to ***.[36]

As presented in table VI-5, byproduct manufacturing/processing costs are not directly comparable to primary and co-product COGS (table VI-1) (see footnote 4). Table VI-5 shows that, on an overall basis, average byproduct manufacturing/processing costs remained within a relatively narrow range.

Gross profit or loss

On a company-specific basis, table VI-4 shows that the financial performance of primary and co-product U.S. producers was similar in some ways but not uniform. Most notably and in contrast with ***, *** reported *** throughout the period.[37] ***, which generated gross profit in 2016 and 2017, reported consecutive average sales value declines during the full-year period. In conjunction with higher average COGS, *** transitioned to a gross loss in full-year 2018 and then transitioned back to gross profit in January-September 2019, corresponding to an increase in average sales value that more than

[35] Email with attachments from *** to USITC staff, February 7, 2020. ***. Ibid.
[36] Verification report, p. 5.
[37] ***. Email from *** to USITC staff, April 25, 2019.

offset the corresponding increase in average COGS. While *** reported declines in absolute gross profit and gross profit ratios (total gross profit divided by total revenue), its gross results remained positive throughout the period.

On an overall basis, total primary and co-product gross profit was negative throughout the period. In large part, this reflects *** pattern of consistent gross losses and the *** share of total primary and co-product SSA sales accounted for by this company. The increasing level of the industry's total gross losses during the full-year period reflects a combination of factors: ***.

When considering the pattern of the U.S. industry's gross losses, two aspects of *** operations should be noted: 1) the export sales of both companies (see *Revenue* section above) are relatively large, notably so for ***; and 2) *** average COGS *** corresponding average export sales value throughout the period. Both companies provided similar explanations regarding the value of exports compared to average COGS.[38] [39] As described in footnote 37, *** also emphasized that the increases in the absolute level of its *** is primarily a revenue issue, reflecting a decline in SSA pricing.[40]

[38] ***. Email with attachment from *** to USITC staff, January 15, 2020.

[39] ***. Submission by Counsel for Petitioners on behalf of ***, January 22, 2020. ***. Verification report, pp. 5-6.

[40] See footnote 17 regarding *** higher average sales value in January-September 2019 compared to January-September 2018.

As shown in table VI-6, net byproduct revenue (i.e., gross sales value minus incremental costs/expenses necessary to sell the product) was *** for several byproduct producers during parts of the period.[41] [42]

SG&A expenses and operating income or loss

Company-specific primary and co-product SG&A expense ratios (total SG&A expenses divided by total revenue) were in a similar range for *** and ***, but diverged as the period progressed. *** reported somewhat lower and moderately declining SG&A expense ratios. To the extent that *** reported *** throughout the period, assigned SG&A expenses effectively determined the level of its ***.

As indicated by its positive operating results in 2016 and 2017, *** SG&A expenses ratios were in a range that was compatible with operating income. With its transition to a gross loss in 2018, *** higher SG&A expense ratio magnified the corresponding operating loss in that year. At the end of the period, the incremental increase in *** SG&A expense ratio in January-September 2019 also partially offset the positive impact of its transition back to a gross profit.[43]

While ***& SG&A expense ratios increased during the period, reflecting a combination of somewhat higher total SG&A expenses and lower overall revenue, the impact

[41] ***. Email from *** to USITC staff, February 3, 2020.
[42] ***. Email with attachment from *** to USITC staff, February 3, 2020.
[43] ***. Email with attachment from *** to USITC staff, January 15, 2020.

on the pattern of corresponding operating results was limited; i.e., *** operating results were largely a function of the pattern of its gross results, which were positive throughout the period.

For primary and co-product producers as a whole, total SG&A expenses remained within a relatively narrow range during the full-year period, declining and increasing in 2017 and 2018, respectively, and then were higher in January-September 2019 compared to January-September 2018. Corresponding SG&A expense ratios increased throughout the period, reflecting a larger decline in revenue compared to SG&A expenses (2017) and further declines in revenue combined with higher SG&A expenses (2018 and January-September 2019). While SG&A expense ratios increased somewhat during the period, the pattern of operating losses primarily reflects the level of gross losses.

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

The relatively small total amounts reported for interest expense, other expenses, and other income had a limited impact on the level of total net losses reported (total natural and synthetic SSA primary and co-product).[44] As such, total net losses were close to the amounts reported for corresponding operating losses.[45]

Capital expenditures and research and development expenses

Table VI-8 presents U.S. producers' capital expenditures and research and development ("R&D") expenses related to SSA operations.

Table VI-8 shows that byproduct producer *** U.S. producer that reported R&D expenses during the period. All U.S. producers except *** reported capital expenditures during the period. On an overall basis and for the period as a whole, *** accounted for the majority (*** percent) of total capital expenditures),[46]

[44] *** was the *** company that reported other expenses and other income and *** was the *** company that reported interest expense. As presented in table VI-1, *** other expenses and other income were reclassified to ***. USITC auditor final-phase notes.

[45] ***. *** U.S. producer questionnaires, response to III-12. See also footnote 35.

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

Table VI-8
SSA: U.S. producers' capital expenditures and research and development (R&D) expenses, by firm, 2016-18, January-September 2018, and January-September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Capital expenditures (1,000 dollars)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Natural production capital expenditures	***	***	***	***	***
Elementis (synthetic co-product)	***	***	***	***	***
Capital expenditures (primary and co-product operations)	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Capital expenditures (byproduct operations)	***	***	***	***	***
Total capital expenditures	***	***	***	***	***
	Research and development expenses (1,000 dollars)				
CNR	***	***	***	***	***
SVM	***	***	***	***	***
Natural production R&D expenses	***	***	***	***	***
Elementis	***	***	***	***	***
R&D (primary and co-product operations)	***	***	***	***	***
East Penn	***	***	***	***	***
Eco-Bat	***	***	***	***	***
Evonik	***	***	***	***	***
GEO	***	***	***	***	***
Research and development expenses (byproduct operations)	***	***	***	***	***
Total research and development expenses	***	***	***	***	***

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

followed by *** (*** percent),[47] and *** (*** percent).[48] Byproduct producers *** accounted for *** percent, *** percent, and *** percent, respectively, of overall capital expenditures.[49]

Assets and return on assets

Table VI-9 presents data on the total net assets and operating return on net assets of natural and synthetic SSA primary and co-product U.S. producers.[50]

[47] *** capital expenditures were highest in January-September 2019, reflecting investments in three categories: ***. Email with attachment from *** to USITC staff, January 15, 2020. ***. Ibid. See also table VI-11.

[48] ***. *** U.S. producer questionnaire, response to III-17 (note 1).

[49] ***. *** U.S. producer questionnaire, response to III-17 (note 1). ***. *** U.S. producer questionnaire, response to III-17 (note 1).

[50] With regard to a company's overall operations, staff notes that a total asset value (i.e., the bottom-line value on the asset side of a company's balance sheet) reflects an aggregation of a number of current and non-current assets, which, in many instances, are not product specific. Allocation factors were presumably necessary to report total asset values specific to U.S. producers' primary and co-product operations. The ability of U.S. producers to assign total asset values to discrete product lines affects the meaningfulness of operating return on net assets. ***. USITC auditor final-phase notes.

Table VI-9
SSA: U.S. producers' natural and synthetic SSA primary and co-product total net assets and operating return on net assets, 2016-18

Firm	Calendar year		
	2016	2017	2018
	Total net assets (1,000 dollars)		
CNR	***	***	***
SVM	***	***	***
Natural production total assets	***	***	***
Elementis (synthetic co-product)	***	***	***
Total net assets	***	***	***
	Operating return on assets (percent)		
CNR	***	***	***
SVM	***	***	***
Natural production operating return on assets	***	***	***
Elementis (synthetic co-product)	***	***	***
Total operating return on assets	***	***	***

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

Capital and investment

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

Table VI-10
SSA: Negative effects of imports from subject sources on investment, growth, and development since January 1, 2016

Item	No	Yes
Negative effects on investment	4	3
Cancellation, postponement, or rejection of expansion projects		1
Denial or rejection of investment proposal		1
Reduction in the size of capital investments		1
Return on specific investments negatively impacted		3
Other		0
Negative effects on growth and development	6	1
Rejection of bank loans		0
Lowering of credit rating		0
Problem related to the issue of stocks or bonds		0
Ability to service debt		0
Other		1
Anticipated negative effects of imports	1	6

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

Table VI-11
SSA: Narrative responses of U.S. producers regarding actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2016

Effects/Firm	Narrative
Negative impact on investment	
Cancellation, postponement, or rejection of expansion projects:	
***	***
Denial or rejection of investment proposal:	
***	***

Table continued on next page.

Table VI-11—Continued
SSA: Narrative responses of U.S. producers regarding actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2016

Effects/Firm	Narrative
Negative impact on investment—continued	
Reduction in the size of capital investments:	
***	***
Return on specific investments negatively impacted:	
***	***
***	***
***	***
Negative impact on growth and development	
Other:	
***	***
Anticipated effects of imports:	
***	***
***	***
***	***
***	***
***	***
***	***

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

Part VII: Threat considerations and information on nonsubject countries

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

---

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

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

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

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

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

Information on the 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 Canada

The Commission issued foreign producers' or exporters' questionnaires to six firms believed to produce and/or export SSA from Canada.[3] Usable responses to the Commission's questionnaire were received from two firms: SMMI, a natural SSA producer, and TODA Advanced Chemicals ("TODA"), a synthetic SSA producer.[4] These firms' exports to the United States accounted for all U.S. imports of SSA from Canada during January 2016-September 2019, and all known production of SSA in Canada. Table VII-1 presents information on the SSA operations of the responding producers and exporters in Canada.

Table VII-1
SSA: Summary data for producers in Canada, 2018

Firm	Production (short tons)	Type of producer	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)
TODA	***	Synthetic	***	***	***	***	***
SMMI	***	Natural	***	***	***	***	***
Total	***		***	***	***	***	***

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

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

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

[4] The Commission also received responses from three firms, ***, certifying that they did not produce or export SSA since January 1, 2016.

Changes in operations

As presented in table VII-2 producers in Canada reported several operational and organizational changes since January 1, 2016. In addition, SMMI reported that it is "***."[5]

[5] SMMI's foreign producer questionnaire response at II-2b.

Table VII-2
SSA: Canadian producers' reported changes in operations, since January 1, 2016

Item / Firm	Reported changes in operations
Plant openings:	
***	***
Revised labor agreements:	
***	***
Other:	
***	***

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

Operations on SSA

Table VII-3 presents information on the SSA operations of the responding producers and exporters in Canada. Capacity increased by *** percent during 2016-18 and was *** percent higher in January-September 2019 than in January-September 2018. Production similarly increased by *** percent between 2016 and 2018, and was *** percent higher in January to September 2019 than in January to September 2018. These increases in capacity and production were due to changes in both SMMI's and TODA's operations. SMMI's capacity and production were constrained in 2016 due to weather conditions in 2015 and 2016 that limited SMMI's harvests of its naturally-occurring raw material (Glauber's salt).[6] SMMI's production was further constrained in 2016 due to depleted sodium sulfate reserves as a result of a caustic soda production feasibility study, that reduced its production during that year.[7] TODA's capacity and production ***. Capacity and production are projected to increase in 2019, but decrease in 2020. These projections are driven by ***.[8]

[6] SMMI's production volume each year is directly tied to the weather conditions during harvest (or brining) season for that year. Conference transcript, pp. 132-134 (McCann), p. 142 (Kearney), pp. 157-158 (Avery), p. 158 (Hironaka). ***. SMMI's foreign producer questionnaire response, II-10.

[7] Conference transcript, pp. 132-136 (McCann). Because of its depleted production levels, SMMI purchased SSA from U.S. producer SVM in 2015 and 2016 so that it could continue to supply its U.S. customers. Most of this purchased SSA was delivered directly from SVM's plant to SMMI's customers. Conference transcript, p. 135 (McCann).

[8] Conference transcript, pp. 133-134 (McCann); and SMMI's foreign producer questionnaire response, II-10.

Home market shipments and exports to the United States both increased during 2016-18, by *** percent and *** percent respectively, and were *** percent and *** percent higher in January to September 2019 than the same period in 2018. SMMI reported that it acquired a new Canadian customer in 2018, which resulted in a significant increase in SMMI's home market shipments from 2017-18; SMMI also noted that its projected growth in home market shipments is mostly due to the growth in sales from this new Canadian customer.[9] Compared to 2018, home market shipments are projected to increase *** percent in 2020, while export shipments to the United States are projected to increase *** percent.

Home market shipments as a share of total shipments increased from *** percent to *** percent between 2016 and 2018, and were lower in January to September 2019 than in the same period in 2018. Home market shipments as a share of total shipments are projected to decline from *** percent of total shipments in 2018 to *** percent in 2019 and *** percent in 2020. Export shipments to the United States as a share of total shipments decreased from *** percent in 2016 to *** percent in 2018, and were higher in January-September 2019 than the same period in 2018. Export shipments to the United States as a share of total shipments are projected to increase from *** percent in 2018 to *** percent and *** percent in 2019 and 2020, respectively.

[9] Respondent's postconference brief, "Answers to the Commission's staff questions," p. 14.

Table VII-3
SSA: Data for industry in Canada, 2016-2018, January-September 2018, and January-September 2019, and projected 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to September		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (short tons)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

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

Firms were asked about their constraints on capacity and ability to switch production from SSA to other products. SMMI explained that its capacity is limited by the amount of lake brine that it can withdraw on an annual basis during its harvest season (or brining season), typically in November to February, and dependent on weather conditions. SMMI also noted that there has been a slow decline in the average harvest volumes, which has limited its overall production capacity.[10]

TODA reported that its production of SSA, as a byproduct of their ***, is constrained by ***.[11]

Alternative products

As mentioned previously, SSA, whether naturally or synthetically produced, is the only product produced on the same equipment and machinery.

Exports

According to Global Trade Atlas, the United States accounted for virtually all exports from Canada of disodium sulfate, a category which contains predominantly in scope SSA (table VII-4).

[10] Conference transcript, pp. 133-134 (McCann).
[11] TODA's foreign producer questionnaire, II-3a.

Table VII-4
SSA: Exports from Canada, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (short tons)		
United States	40,051	55,254	55,429
Algeria	38	12	12
Hong Kong	---	---	0
Hungary	---	---	1
Poland	0	---	---
Turkey	---	0	0
Total exports	40,090	55,266	55,442
	Value (1,000 dollars)		
United States	4,811	6,358	5,781
Algeria	4	3	3
Hong Kong	---	---	0
Hungary	---	---	0
Poland	0	---	---
Turkey	---	0	0
Total exports	4,815	6,360	5,784
	Unit value (dollars per short ton)		
United States	120	115	104
Algeria	109	227	230
Hong Kong	---	---	225
Hungary	---	---	232
Poland	105	---	---
Turkey	---	234	231
Total exports	120	115	104
	Share of quantity (percent)		
United States	99.9	100.0	100.0
Algeria	0.1	0.0	0.0
Hong Kong	---	---	0.0
Hungary	---	---	0.0
Poland	0.0	---	---
Turkey	---	0.0	0.0
Total exports	100.0	100.0	100.0

Note: --Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. United States is shown at the top, all remaining top export destinations shown in descending order of 2018 data.

Source: Official exports statistics under HS subheading 2833.11 as reported by Statistics Canada in the Global Trade Atlas database, accessed December 27, 2019.

U.S. inventories of imported merchandise

Table VII-5 presents data on U.S. importers' reported inventories of SSA. SMMI accounted for ***. Inventories of subject imports increased by *** percent between 2016 and 2018 and were higher in interim 2019 than in interim 2018. The ratio of subject importers' inventories to U.S. shipments of imports varied between 2016 and 2018, ranging from *** percent to *** percent. The ratio of subject importers' inventories to U.S. shipments of imports was lower in January-September 2019 at *** percent than in the same period 2018 when it was at *** percent.

Table VII-5
SSA: U.S. importers' inventories, 2016-2018, January to September 2018, and January to September 2019

Item	Calendar year			January to September	
	2016	2017	2018	2018	2019
	Inventories (short tons); Ratios (percent)				
Imports from Canada					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from nonsubject sources:					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from all import sources:					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***

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

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of SSA after September 30, 2019. Six of nine responding firms indicated that they had arranged such imports. Five responding firms indicated they had arranged for the importation of SSA from nonsubject sources, while one firm indicated it had arranged imports from Canada. ***. These data are presented in table VII-6.

Table VII-6
SSA: Arranged imports, October 2019 through September 2020

Item	Period				
	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	Jul-Sept 2020	Total
	Quantity (short tons)				
Arranged U.S. imports from.--					
Canada	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Antidumping or countervailing duty orders in third-country markets

Both the petitioners and respondents state that they are unaware of any antidumping or countervailing duty orders in third-country markets.[12] There are no known third-country orders.

Information on nonsubject countries

Table VII-7 presents the leading exports of disodium sulfate (HS 2833.11), a category that consists predominantly of in-scope SSA. Total world exports of disodium sulfate by quantity increased by 4.3 percent between 2016 and 2018. The leading exporters of disodium sulfate were China, Spain, and the United States, accounting for 61.4 percent, 25.1 percent, and 5.0 percent in 2018, respectively. Canada was the seventh largest exporter and accounted for less than one percent of global exports in 2018.

[12] Conference transcript, p. 62 (Trendl), p. 173 (Heffner).

Table VII-7
Disodium sulfate: Global exports by exporter, 2016-18

Exporter	Calendar year		
	2016	2017	2018
	Quantity (short tons)		
United States	156,218	234,915	313,694
Canada	40,090	55,266	55,442
All other major reporting exporters:--			
China	4,005,347	3,547,441	3,858,928
Spain	1,403,204	1,559,109	1,578,467
India	112,635	116,678	111,719
Turkey	15,268	49,693	92,623
France	62,645	67,252	87,724
Indonesia	56,746	44,520	44,299
Sweden	35,203	46,645	39,193
Mexico	18,245	17,295	26,950
Taiwan	36,829	18,924	19,038
Slovenia	8,510	11,072	8,173
All other exporters	77,555	76,770	53,146
Total global exports	6,028,496	5,845,579	6,289,397
	Value (1,000 dollars)		
United States	15,468	22,371	21,491
Canada	4,815	6,360	5,784
All other major reporting exporters:--			
China	228,896	239,468	330,625
Spain	129,139	130,928	137,828
India	9,163	9,649	11,650
Turkey	1,516	4,589	9,488
France	7,606	7,268	9,209
Indonesia	2,669	2,762	3,295
Sweden	2,312	2,704	3,110
Mexico	3,108	2,527	3,574
Taiwan	3,315	2,374	2,507
Slovenia	1,074	1,291	935
All other exporters	14,749	17,392	19,024
Total global exports	423,831	449,683	558,522

Table continued on next page.

Table VII-7--Continued
Disodium sulfate: Global exports by exporter, 2016-18

Exporter	Calendar year		
	2016	2017	2018
	Unit value (dollars per short ton)		
United States	99	95	69
Canada	120	115	104
All other major reporting exporters:--			
China	57	68	86
Spain	92	84	87
India	81	83	104
Turkey	99	92	102
France	121	108	105
Indonesia	47	62	74
Sweden	66	58	79
Mexico	170	146	133
Taiwan	90	125	132
Slovenia	126	117	114
All other exporters	190	227	358
Total global exports	70	77	89
	Share of quantity (percent)		
United States	2.6	4.0	5.0
Canada	0.7	0.9	0.9
All other major reporting exporters:--			
China	66.4	60.7	61.4
Spain	23.3	26.7	25.1
India	1.9	2.0	1.8
Turkey	0.3	0.9	1.5
France	1.0	1.2	1.4
Indonesia	0.9	0.8	0.7
Sweden	0.6	0.8	0.6
Mexico	0.3	0.3	0.4
Taiwan	0.6	0.3	0.3
Slovenia	0.1	0.2	0.1
All other exporters	1.3	1.3	0.8
Total global exports	100.0	100.0	100.0

Table continued on next page.

Table VII-7--Continued
Disodium sulfate: Global exports by exporter, 2016-18

Exporter	Calendar year		
	2016	2017	2018
	Share of value (percent)		
United States	3.6	5.0	3.8
Canada	1.1	1.4	1.0
All other major reporting exporters.--			
China	54.0	53.3	59.2
Spain	30.5	29.1	24.7
India	2.2	2.1	2.1
Turkey	0.4	1.0	1.7
France	1.8	1.6	1.6
Indonesia	0.6	0.6	0.6
Sweden	0.5	0.6	0.6
Mexico	0.7	0.6	0.6
Taiwan	0.8	0.5	0.4
Slovenia	0.3	0.3	0.2
All other exporters	3.5	3.9	3.4
Total global exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 2833.11 reported by various national statistical authorities in the Global Trade Atlas database, accessed April 19, 2019.

According to published sources, global capacity of SSA in 2016 was *** short tons, global production was *** short tons, and global apparent consumption was *** short tons, shown in table VII-8.[13] The average annual growth rate from 2016–21 is forecast to be *** percent.[14] Capacity in 2016 was *** short tons for China, *** short tons for Europe, *** short tons for Mexico, and *** short tons for Japan.[15] Consumption of SSA in 2016 was *** short tons for China, *** short tons for Europe, *** short tons for Mexico, and *** short tons for Japan, as shown in table VII-8. Globally, SSA is consumed primarily in detergents (*** percent), sodium sulfide manufacturing (*** percent), glass production (*** percent), kraft pulp (*** percent), and textile dyeing and printing (*** percent), as shown in table VII-9.[16]

[13] *Chemical Economics Handbook*: Sodium Sulfate, IHS, November 2016, p. 5.
[14] Ibid.
[15] Ibid.
[16] Ibid., p. 6.

Table VII-8
SSA: Supply/demand for SSA by major regions, 2016

	Capacity	Production	Imports	Exports	Apparent Consumption
	Quantity (1,000 short tons)				
North America: United States	***	***	***	***	***
Canada	***	***	***	***	***
Mexico	***	***	***	***	***
Total North America	***	***	***	***	***
Central and South America	***	***	***	***	***
Europe	***	***	***	***	***
Asia: China	***	***	***	***	***
Japan	***	***	***	***	***
Other[1]	***	***	***	***	***
Total Asia	***	***	***	***	***
Total World	***	***	***	***	***

[1] ***.

Source*: Chemical Economics Handbook:* Sodium Sulfate, IHS, November 2016, p. 5.

Table VII-9
SSA: World consumption of sodium sulfate by end use, 2016

Item	Deter-gents	Sodium Sulfide	Glass	Kraft pulp	Textiles	Other	Total
	Quantity (1,000 short tons)						
North America: United States	***	***	***	***	***	***	***
Canada	***	***	***	***	***	***	***
Mexico	***	***	***	***	***	***	***
Total North America	***	***	***	***	***	***	***
Central and South America:[2] Brazil	***	***	***	***	***	***	***
Europe	***	***	***	***	***	***	***
Asia: China	***	***	***	***	***	***	***
Japan	***	***	***	***	***	***	***
Other[3]	***	***	***	***	***	***	***
Total Asia	***	***	***	***	***	***	***
Total World	***	***	***	***	***	***	***
Percentage of total world	***	***	***	***	***	***	***

[1] ***.
[2] ***.
[3] ***.

Source: *Chemical Economics Handbook:* Sodium Sulfate, IHS, November 2016, p. 5.

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
84 FR 13066, April 3, 2019	*Sodium Sulfate Anhydrous From Canada; Institution of Antidumping Duty Investigation and Scheduling of Preliminary Phase Investigation*	https://www.govinfo.gov/content/pkg/FR-2019-04-03/pdf/2019-06453.pdf
84 FR 17138, April 24, 2019	*Sodium Sulfate Anhydrous From Canada: Initiation of Less-Than-Fair-Value Investigation*	https://www.govinfo.gov/content/pkg/FR-2019-04-24/pdf/2019-08272.pdf
84 FR 22519, May 17, 2019	*Sodium Sulfate Anhydrous From Canada*	https://www.govinfo.gov/content/pkg/FR-2019-05-17/pdf/2019-10229.pdf
84 FR 60375, November 8, 2019	*Sodium Sulfate Anhydrous From Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Preliminary Negative Determination of Critical Circumstances, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2019-11-08/pdf/2019-24392.pdf
84 FR 66218, December 3, 2019	*Sodium Sulfate Anhydrous From Canada; Scheduling of the Final Phase of an Anti-Dumping Duty Investigation*	https://www.govinfo.gov/content/pkg/FR-2019-12-03/pdf/2019-26073.pdf
85 FR 17534, March 30, 2020	*Sodium Sulfate Anhydrous From Canada: Final Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*	https://www.govinfo.gov/content/pkg/FR-2020-03-30/pdf/2020-06547.pdf

APPENDIX B

LIST OF HEARING PARTICIPANTS

CALENDAR OF PUBLIC HEARING

Those listed below participated as witnesses in the United States International Trade Commission's hearing:

Subject: Sodium Sulfate Anhydrous from Canada

Inv. No.: 731-TA-1446 (Final)

Date: March 19-27, 2020

The hearing was opened by Chairman David S. Johanson via teleconference and the schedule for written submissions was provided as follows:

Thursday, March 19, Noon: Commission staff issue first set of questions to parties
Monday, March 23, COB: Parties submit and serve witness testimony and response to first set of questions (BPI on March 23 and public versions the following day)
Wednesday, March 25, COB: Commission staff issue second set of questions to parties
Friday, March 27, COB: Parties submit and serve posthearing brief and responses to second round of questions (BPI on March 27 and public versions the following day)

OPENING REMARKS:

Petitioners (**Thomas J. Trendl**, Steptoe & Johnson LLP)
Respondents (**Douglas J. Heffner**, Faegre Drinker Biddle & Reath LLP)

In Support of the Imposition of the Antidumping Duty Order:

Steptoe & Johnson LLP
Washington, DC
on behalf of

Cooper Natural Resources ("CNR")
Elementis Global LLC ("Elementis)
Searles Valley Minerals ("SVM")

Greg Cooper, Chairman and Chief Executive Officer, CNR

Joseph Kane, President, CNR

Michael Cortese, Director of Sales, Elementis

In Support of the Imposition of the
Antidumping Duty Order (continued):

Pamela Ford, Vice President of Sales & Marketing, SVM

Guy Wrenn, President, Giles Chemical Industries

Thomas Rogers, Economist, Capital Trade

Travis Pope, Economist, Capital Trade

Thomas J. Trendl)
) – OF COUNSEL
St. Lutheran M. Tillman)

In Opposition to the Imposition of the
Antidumping Duty Order:

Faegre Drinker Biddle & Reath LLP
Washington, DC
on behalf of

Saskatchewan Mining and Minerals Inc. ("SMMI")

Rodney J. McCann, President, SMMI

John F. Kearney, Director, SMMI

Brent Avery, General Manager, SMMI

Patricia A. Weigel, Commodity Manager, Nippon Dynawave Packaging

Khaled Nabeel Ali Murshed, Global Category Manager,
Novozymes North America Inc.

Shane Warren, Government Relations, Dupont/Danisco US, Inc.

Randy Holt, Chemical Sourcing and Business Development, CORECHEM Inc.

Ruby Cozart, Regional Accounts and Logistics Manager, SMMI

Brett Routledge, Controller, SMMI

In Opposition to the Imposition of the
Antidumping Duty Order (continued):

Jim Dougan, Vice President, Economic Consulting Services, LLC

Douglas J. Heffner)
) – OF COUNSEL
Richard P. Ferrin)

Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, DC
On behalf of

Government of Canada

Daniel L. Porter)
James P. Durling)
Kimberly A. Reynolds) – OF COUNSEL
Ana M. Amador)
John Taishu Pitt)

NO CLOSING REMARKS

-END-

APPENDIX C

SUMMARY DATA

All SSA

Table C-1
SSA: Summary data concerning the U.S. market, 2016-18, January to September 2018, and January to September 2019
(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
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount	364,770	377,432	375,190	275,567	278,584	▲2.9	▲3.5	▼(0.6)	▲1.1
Producers' share (fn1)	86.8	83.6	82.6	83.1	77.2	▼(4.2)	▼(3.2)	▼(0.9)	▼(6.0)
Importers' share (fn1):									
Canada	10.7	14.4	14.8	14.6	18.4	▲4.1	▲3.7	▲0.4	▲3.9
Nonsubject sources	2.6	2.0	2.6	2.3	4.4	▲0.1	▼(0.5)	▲0.6	▲2.1
All import sources	13.2	16.4	17.4	16.9	22.8	▲4.2	▲3.2	▲0.9	▲6.0
U.S. consumption value:									
Amount	38,238	37,626	35,149	25,913	28,024	▼(8.1)	▼(1.6)	▼(6.6)	▲8.1
Producers' share (fn1)	83.4	80.6	78.7	79.4	72.4	▼(4.8)	▼(2.8)	▼(2.0)	▼(7.0)
Importers' share (fn1):									
Canada	12.2	15.7	16.4	16.1	20.4	▲4.2	▲3.4	▲0.8	▲4.3
Nonsubject sources	4.3	3.7	4.9	4.5	7.2	▲0.6	▼(0.6)	▲1.2	▲2.7
All import sources	16.6	19.4	21.3	20.6	27.6	▲4.8	▲2.8	▲2.0	▲7.0
U.S. imports from:									
Canada:									
Quantity	38,883	54,381	55,387	40,148	51,369	▲42.4	▲39.9	▲1.8	▲27.9
Value	4,683	5,895	5,775	4,183	5,721	▲23.3	▲25.9	▼(2.0)	▲36.7
Unit value	$120.45	$108.39	$104.27	$104.20	$111.36	▼(13.4)	▼(10.0)	▼(3.8)	▲6.9
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▼***	▲***
Nonsubject sources:									
Quantity	9,335	7,676	9,865	6,339	12,230	▲5.7	▼(17.8)	▲28.5	▲92.9
Value	1,648	1,391	1,729	1,163	2,015	▲4.9	▼(15.6)	▲24.3	▲73.2
Unit value	$176.58	$181.14	$175.27	$183.47	$164.73	▼(0.7)	▲2.6	▼(3.2)	▼(10.2)
Ending inventory quantity	***	***	***	***	***	▼***	***	▼***	▲***
All import sources:									
Quantity	48,218	62,058	65,251	46,488	63,599	▲35.3	▲28.7	▲5.1	▲36.8
Value	6,332	7,285	7,504	5,347	7,735	▲18.5	▲15.1	▲3.0	▲44.7
Unit value	$131.32	$117.39	$115.00	$115.01	$121.63	▼(12.4)	▼(10.6)	▼(2.0)	▲5.8
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. producers':									
Average capacity quantity	594,182	594,182	594,182	445,637	445,637	---	---	---	---
Production quantity	529,858	542,506	523,588	395,824	351,186	▼(1.2)	▲2.4	▼(3.5)	▼(11.3)
Capacity utilization (fn1)	89.2	91.3	88.1	88.8	78.8	▼(1.1)	▲2.1	▼(3.2)	▼(10.0)
U.S. shipments:									
Quantity	316,552	315,374	309,939	229,079	214,985	▼(2.1)	▼(0.4)	▼(1.7)	▼(6.2)
Value	31,906	30,341	27,645	20,567	20,289	▼(13.4)	▼(4.9)	▼(8.9)	▼(1.4)
Unit value	$100.79	$96.21	$89.19	$89.78	$94.37	▼(11.5)	▼(4.5)	▼(7.3)	▲5.1
Export shipments:									
Quantity	***	***	***	***	***	▲***	▼***	▲***	▼***
Value	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit value	***	***	***	***	***	▼***	▼***	▲***	▲***
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▼***	▼***
Inventories/total shipments (fn1)	***	***	***	***	***	▲***	▲***	▼***	▼***
Production workers	131	131	132	130	132	▲0.8	---	▲0.8	▲1.5
Hours worked (1,000s)	300	296	291	221	232	▼(3.0)	▼(1.4)	▼(1.6)	▲4.7
Wages paid ($1,000)	10,453	10,582	10,561	8,029	8,952	▲1.0	▲1.2	▼(0.2)	▲11.5
Hourly wages (dollars per hour)	$34.84	$35.78	$36.29	$36.29	$38.66	▲4.2	▲2.7	▲1.4	▲6.5
Productivity (short tons per hour)	1.8	1.8	1.8	1.8	1.5	▲1.9	▲3.9	▼(1.9)	▼(15.2)
Unit labor costs	$19.73	$19.51	$20.17	$20.29	$25.49	▲2.2	▼(1.1)	▲3.4	▲25.7

Table continued on next page.

Table C-1--Continued
SSA: Summary data concerning the U.S. market, 2016-18, January to September 2018, and January to September 2019
(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
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
Net sales:									
Quantity (fn3)	430,415	417,411	429,232	329,018	282,258	▼(0.3)	▼(3.0)	▲2.8	▼(14.2)
Value (fn3)	34,313	29,305	29,084	22,195	23,262	▼(15.2)	▼(14.6)	▼(0.8)	▲4.8
Unit value (fn3)	$79.72	$70.21	$67.76	$67.46	$82.41	▼(15.0)	▼(11.9)	▼(3.5)	▲22.2
Cost of goods sold (COGS) (fn3)	35,646	34,469	36,438	26,952	26,345	▲2.2	▼(3.3)	▲5.7	▼(2.2)
Gross profit or (loss) (fn2) (fn3)	(1,332)	(5,163)	(7,355)	(4,757)	(3,084)	▼---	▼---	▼---	▲---
SG&A expenses (fn3)	2,317	2,268	2,333	1,791	2,015	▲0.7	▼(2.1)	▲2.9	▲12.5
Operating income or (loss) (fn2) (fn3)	(3,649)	(7,431)	(9,688)	(6,548)	(5,099)	▼---	▼---	▼---	▲---
Net income or (loss) (fn2) (fn3)	(3,643)	(7,472)	(9,647)	(6,580)	(4,609)	▼---	▼---	▼---	▲---
Capital expenditures (fn3)	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit COGS (fn3)	$82.82	$82.58	$84.89	$81.92	$93.34	▲2.5	▼(0.3)	▲2.8	▲13.9
Unit SG&A expenses (fn3)	$5.38	$5.43	$5.44	$5.44	$7.14	▲1.0	▲0.9	▲0.1	▲31.2
Unit operating income or (loss) (fn2) (fn3)	$(8.48)	$(17.80)	$(22.57)	$(19.90)	$(18.07)	▼---	▼---	▼---	▲---
Unit net income or (loss) (fn2) (fn3)	$(8.46)	$(17.90)	$(22.48)	$(20.00)	$(16.33)	▼---	▼---	▼---	▲---
COGS/sales (fn1) (fn3)	103.9	117.6	125.3	121.4	113.3	▲21.4	▲13.7	▲7.7	▼(8.2)
Operating income or (loss)/sales (fn1) (fn3)	(10.6)	(25.4)	(33.3)	(29.5)	(21.9)	▼(22.7)	▼(14.7)	▼(8.0)	▲7.6
Net income or (loss)/sales (fn1) (fn3)	(10.6)	(25.5)	(33.2)	(29.6)	(19.8)	▼(22.6)	▼(14.9)	▼(7.7)	▲9.8

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.
fn3.--With the exception of capital expenditures, which include capital expenditures reported by byproduct producers (all synthetic) and primary/co-product (natural and synthetic) SSA producers, the information presented is limited to ***.

Source: Compiled from data submitted in response to Commission questionnaires and from official U.S. imports statistics using HTS statistical reporting number 2833.11.5010, accessed January 6, 2020.

Natural SSA

Table C-2
SSA: Summary data concerning the U.S. producers of Natural SSA, 2016-18, January to September 2018, and January to September 2019
(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
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	▼***	▲***	▼***	▼***
Capacity utilization (fn1)	***	***	***	***	***	▼***	▲***	▼***	▼***
U.S. shipments:									
Quantity	***	***	***	***	***	▼***	▼***	▼***	▼***
Value	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▲***
Export shipments:									
Quantity	***	***	***	***	***	▲***	▼***	▲***	▼***
Value	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit value	***	***	***	***	***	▼***	▼***	▲***	▲***
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▼***	▼***
Inventories/total shipments (fn1)	***	***	***	***	***	▲***	▲***	▼***	▼***
Production workers	***	***	***	***	***	***	***	***	▲***
Hours worked (1,000s)	***	***	***	***	***	▼***	▼***	▼***	▲***
Wages paid ($1,000)	***	***	***	***	***	▼***	▲***	▼***	▲***
Hourly wages (dollars per hour)	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (short tons per hour)	***	***	***	***	***	▲***	▲***	▼***	▼***
Unit labor costs	***	***	***	***	***	▲***	▼***	▲***	▲***
Net sales:									
Quantity (fn3)	***	***	***	***	***	▼***	▼***	▲***	▼***
Value (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit value (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Cost of goods sold (COGS) (fn3)	***	***	***	***	***	▲***	▼***	▲***	▼***
Gross profit or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses (fn3)	***	***	***	***	***	▼***	▼***	▲***	▲***
Operating income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Capital expenditures (fn3)	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit COGS (fn3)	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit SG&A expenses (fn3)	***	***	***	***	***	▲***	▼***	▲***	▲***
Unit operating income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit net income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
COGS/sales (fn1) (fn3)	***	***	***	***	***	▲***	▲***	▲***	▼***
Operating income or (loss)/sales (fn1) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss)/sales (fn1) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▲***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.
fn3.--The information presented is limited to ***.

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

Synthetic SSA

Table C-3
SSA: Summary data concerning the U.S. producers of Synthetic SSA, 2016-18, January to September 2018, and January to September 2019
(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
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Capacity utilization (fn1)	***	***	***	***	***	▲***	▲***	▲***	▼***
U.S. shipments:									
Quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Value	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Export shipments:									
Quantity	***	***	***	***	***	▲***	▼***	▲***	▼***
Value	***	***	***	***	***	▲***	▼***	▲***	▼***
Unit value	***	***	***	***	***	▲***	▼***	▲***	▼***
Ending inventory quantity	***	***	***	***	***	▼***	▲***	▼***	▼***
Inventories/total shipments (fn1)	***	***	***	***	***	▼***	▲***	▼***	▼***
Production workers	***	***	***	***	***	▲***	***	▲***	***
Hours worked (1,000s)	***	***	***	***	***	▲***	▲***	▲***	▼***
Wages paid ($1,000)	***	***	***	***	***	▲***	▲***	▲***	▲***
Hourly wages (dollars per hour)	***	***	***	***	***	▲***	▲***	▲***	▲***
Productivity (short tons per hour)	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit labor costs	***	***	***	***	***	▲***	▲***	▲***	▲***
Co-product producers':									
Net sales:									
Quantity (fn3)	***	***	***	***	***	▲***	▼***	▲***	▼***
Value (fn3)	***	***	***	***	***	▼***	▼***	▲***	▼***
Unit value (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Cost of goods sold (COGS) (fn3)	***	***	***	***	***	▲***	▼***	▲***	▼***
Gross profit or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
SG&A expenses (fn3)	***	***	***	***	***	▲***	▲***	▲***	▼***
Operating income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Net income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Capital expenditures (fn3)	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit COGS (fn3)	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit SG&A expenses (fn3)	***	***	***	***	***	▼***	▲***	▼***	▲***
Unit operating income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit net income or (loss) (fn2) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
COGS/sales (fn1) (fn3)	***	***	***	***	***	▲***	▲***	▲***	▲***
Operating income or (loss)/sales (fn1) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Net income or (loss)/sales (fn1) (fn3)	***	***	***	***	***	▼***	▼***	▼***	▼***
Byproduct producers':									
Byproduct revenue:									
Quantity (fn4)	***	***	***	***	***	▲***	▲***	▼***	▼***
Value (fn4)	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit byproduct revenue (fn4)	***	***	***	***	***	▼***	▼***	▼***	▼***
Total separable byproduct costs/expenses (fn	***	***	***	***	***	▼***	▼***	▼***	▲***
Net byproduct revenue (fn4)	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit separable byproduct costs/expenses (	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit net byproduct revenue (fn4)	***	***	***	***	***	▼***	▲***	▼***	▼***
Byproduct capital expenditures (fn4)	***	***	***	***	***	▲***	▲***	▼***	▲***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.
fn3.--With the exception of capital expenditures, which include capital expenditures reported by byproduct producers (all synthetic) and the co-product (synthetic) SSA produce the information presented is limited to ***.
fn4.--The information presented is limited to byproduct producers ***.

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

APPENDIX D

U.S. AND CANADIAN DELIVERED PRICE DATA

Three U.S. producers and one Canadian importer reported price data for delivered products 1-4 sold to distributors and sold to end users. U.S. producers *** quantities for delivered products in this appendix differ from f.o.b. product reported in tables V-3 and V-4. Canadian quantities in tables D-1 to D-8 are the same as quantities in tables V-3 to V-10. Delivered prices represent 66.5 percent of U.S. producers' U.S. shipments and Canadian coverage is the same as in part V, 100 percent. Delivered price and quantity data are shown in tables D-1 to D-8 and in figure D-1 to D-8.

Table D-1
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table D-2
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table D-3
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table D-4
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table D-5
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs

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

Table D-6
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs

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

Table D-7
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Table D-8
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (dollars per short ton)	Quantity (short tons)	Price delivered (dollars per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags.

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

Figure D-1
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure D-2
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure D-3
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure D-4
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure D-5
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Figure D-6
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs.

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

Figure D-7
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure D-8
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

U.S. producers' delivered prices increased for five of the eight pricing products and channel combinations, with increases ranging from *** to *** percent, in the remaining three instances, U.S. prices declined from *** to *** percent (table D-9). Delivered prices for SSA produced in Canada increased in 2 of the 7 instances, price increases ranged from *** to *** percent. Canadian delivered priced declined in the remaining 5 instances from *** to *** percent.

Table D-9
SSA: Summary of weighted-average f.o.b. prices for products 1-4 sales to distributors and to end users from the United States and Canada and landed duty paid value for Canadian importer/end users

Item	Number of quarters	Low price/cost (per short ton)	High price/cost (per short ton)	Change in price/cost (percent)
Product 1 to distributors:				
United States	15	***	***	***
Canada	13	***	***	***
Product 1: to end users:				
United States	15	***	***	***
Canada	15	***	***	***
Product 2 to distributors:				
United States	15	***	***	***
Canada	15	***	***	***
Product 2: to end users:				
United States	15	***	***	***
Canada	15	***	***	***
Product 3 to distributors:				
United States	15	***	***	***
Canada	15	***	***	***
Product 3: to end users:				
United States	15	***	***	***
Canada	15	***	***	***
Product 4 to distributors:				
United States	15	***	***	***
Canada	14	***	***	***
Product 4: to end users:				
United States	15	***	***	***
Canada	15	***	***	***

Note: Percentage change from the first quarter of 2016 to the third quarter of 2019. The price of Canadian delivered product 1 price sold to distributors increased by *** percent between the first quarter of 2016 to the second quarter of 2019.

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

In comparing delivered pricing data, delivered prices for product imported from Canada undersold delivered prices for U.S.-produced product in 54 of 117 instances (*** short tons) and oversold in 63 instances (*** short tons). A summary of margins of under and overselling is presented in table D-10.

Table D-10
SSA: Instances of underselling/overselling and the range and average of margins for delivered data, by country, January 2016-September 2019

Source	Underselling				
	Number of quarters	Quantity (short tons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	---	***	***	***	***
Product 2	1	***	***	***	***
Product 3	15	***	***	***	***
Product 4	15	***	***	***	***
Subtotal - to distributors	31	***	***	***	***
Product 1	10	***	***	***	***
Product 2	---	***	***	***	***
Product 3	12	***	***	***	***
Product 4	1	***	***	***	***
Subtotal - to end users	23	***	***	***	***
Total, underselling	54	***	***	***	***
Source	**(Overselling)**				
	Number of quarters	Quantity (short tons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	13	***	***	***	***
Product 2	14	***	***	***	***
Product 3	---	***	***	***	***
Product 4	---	***	***	***	***
Subtotal - to distributors	27	***	***	***	***
Product 1	5	***	***	***	***
Product 2	15	***	***	***	***
Product 3	2	***	***	***	***
Product 4	14	***	***	***	***
Subtotal - to end users	36	***	***	***	***
Total, overselling	63	***	***	***	***

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

APPENDIX E

U.S. AND CANADIAN F.O.B. AND DELIVERED PRICE DATA WITH GILES/SALTEX PRICES REPLACING THE PRICES OF ITS SUPPLIERS

Three U.S. producers, Giles/Saltex, and one Canadian importer (SMMI) reported price data for f.o.b. and delivered products 1-4 sold to distributors and sold to end users used in this appendix. Canadian data for f.o.b. prices in these tables is identical to that in tables V-3 to V-10. In contrast, the tables below replace the quantity and value data from four U.S. producers that sell directly to Giles/Saltex with price and quantity data provided by Giles/Saltex for its f.o.b. and delivered sales.

In 92 of 120 product and channel of distribution combinations, the resulting f.o.b. prices were higher as a result of this replacement. In the remaining 28 instances, f.o.b. prices were lower (comparing price data in tables V-3 to V-10 to E-1 to E-8). In 68 of 120 product and channel of distribution combinations, the resulting delivered prices were higher as a result of this replacement, in 12 instances the delivered prices were identical, and in 40 instances the delivered prices were lower (comparing price data in tables D-1 to D-8 to E-11 to E-18).

Because Giles/Saltex *** it purchases from the U.S. producers, U.S. price coverage is lower than reported in part V. For these data, U.S. pricing coverage is *** percent.[1] [2] F.o.b. price and quantity data are shown in tables E-1 to E-8 and in figure E-1 to E-8. Table E-9 reports the changes in f.o.b. prices between the first quarter of 2016 and the third quarter of 2019, and the high and low prices for this period for price data that uses Giles/Saltex. Table E-9 is equivalent to table V-11 except the values provided by Giles/Saltex will typically result in different U.S. prices. Table E-10 reports the underselling and overselling for the price data including Giles/Saltex and is equivalent to table V-12 except the values provided by Giles/Saltex will typically result in different U.S. prices.

[1] Giles/Saltex reported selling a total of *** short tons of SSA between January 2016 and September 2019. *** combined reported selling *** short tons to Giles/Saltex. ***.
[2] ***.

Table E-1
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table E-2
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table E-3
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table E-4
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table E-5
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Table E-6
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Table E-7
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags.

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

Table E-8
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price f.o.b. (per short ton)	Quantity (short tons)	Price f.o.b. (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure E-1
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure E-2
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure E-3
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure E-4
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure E-5
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Figure E-6
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Figure E-7
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure E-8
SSA: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Table E-9 summarizes the f.o.b. price trends during January 2016-September 2019, by country and by product incorporating data provided by Giles/Saltex. As shown in the table, domestic f.o.b. prices increased in five of eight instances, (*** percent) and domestic price decreased in three instances (*** percent) during January 2016-September 2019. Import f.o.b. price increased in three of seven instances (*** percent) and import price decreased in four instances (*** percent).

Table E-9
SSA: Summary of weighted-average f.o.b. prices for products 1-4 sales to distributors and to end users from the United States and Canada and landed duty paid value for Canadian importer/end users

Item	Number of quarters	Low price/cost (per short ton)	High price/cost (per short ton)	Change in price/cost (percent)
Product 1 to distributors: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	13	***	***	***
Product 1 to end users: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***
Product 2 to distributors: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***
Product 2 to end users: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***
Product 3 to distributors: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***
Product 3 to end users: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***
Product 4 to distributors: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	14	***	***	***
Product 4 to end users: United States (f.o.b.)	15	***	***	***
Canada (f.o.b.)	15	***	***	***

Note: Percentage change from the first quarter in 2016 the third quarter in 2019. The price of Canadian f.o.b. product 1 price sold to distributors increased by *** percent between the first quarter of 2016 to the second quarter of 2019.

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

In comparing f.o.b. pricing data, f.o.b. prices for product imported from Canada undersold f.o.b. prices for U.S.-produced product in 35 of 117 instances (*** short tons) and oversold in 82 instances (*** short tons). A summary of margins of under and overselling is presented in table E-10.

Table E-10
SSA: Instances of underselling/overselling and the range and average of margins for f.o.b. data, by country, January 2016-September 2019

Product, type of price, and channel of distribution	Underselling				
	Number of quarters	Quantity (short tons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1 f.o.b. to distributors	---	***	***	***	***
Product 2 f.o.b. to distributors	2	***	***	***	***
Product 3 f.o.b. to distributors	13	***	***	***	***
Product 4 f.o.b. to distributors	15	***	***	***	***
Subtotal f.o.b. to distributors	30	***	***	***	***
Product 1 f.o.b. to end users	---	***	***	***	***
Product 2 f.o.b. to end users	---	***	***	***	***
Product 3 f.o.b. to end users	3	***	***	***	***
Product 4 f.o.b. to end users	2	***	***	***	***
Subtotal f.o.b. to end users	5	***	***	***	***
Total f.o.b.	35	***	***	***	***
Product, type of price, and channel of distribution	**(Overselling)**				
	Number of quarters	**Quantity (short tons)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1 f.o.b. to distributors	13	***	***	***	***
Product 2 f.o.b. to distributors	13	***	***	***	***
Product 3 f.o.b. to distributors	2	***	***	***	***
Product 4 f.o.b. to distributors	---	***	***	***	***
Subtotal f.o.b. to distributors	28	***	***	***	***
Product 1 f.o.b. to end users	15	***	***	***	***
Product 2 f.o.b. to end users	15	***	***	***	***
Product 3 f.o.b. to end users	11	***	***	***	***
Product 4 f.o.b. to end users	13	***	***	***	***
Subtotal f.o.b. to end users	54	***	***	***	***
Total f.o.b.	82	***	***	***	***

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

The delivered quantity and value data reported by SMMI in tables E-11 to E-19 and in figure E-9 to E-16 is identical to the data to in tables D-1 to D-8. U.S. quantities should be identical to those reported in table E-1 to E-8. In contrast, the U.S. prices and quantities differ from those reported in D-1 to D-8. In tables D-1 to D-8, no delivered quantities or values were reported by the producers that used Giles/Saltex to market and arrange their sales. In E-11 to E-19, however, delivered prices for these Giles/Saltex sale of these products is used (tables E-11 to E-19 and in figure E-9 to E-16). Tables E-19 and E-20 shows the changes in delivered prices and the overselling and underselling of delivered prices, respectively. These are equivalent to tables D-9 and D-10, with Giles/Saltex's delivered prices used in the formulation of U.S. prices.

Table E-11
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table E-12
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Table E-13
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table E-14
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons)

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

Table E-15
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Table E-16
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Table E-17
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to distributors and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to distributors		Canada - to distributors		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Table E-18
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to end users and margins of underselling/(overselling), by quarter, January 2016-September 2019

Period	United States - to end users		Canada - to end users		
	Price delivered (per short ton)	Quantity (short tons)	Price delivered (per short ton)	Quantity (short tons)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***
Apr.-June	***	***	***	***	***
July-Sept.	***	***	***	***	***

Note: Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure E-9
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure E-10
SSA: Weighted-average delivered prices and quantities of domestic and imported product 1 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 1: Sodium sulfate anhydrous in bulk, hopper cars (approximately 100 short tons).

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

Figure E-11
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure E-12
SSA: Weighted-average delivered prices and quantities of domestic and imported product 2 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 2: Sodium sulfate anhydrous in bulk, trucks (approximately 25 short tons).

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

Figure E-13
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to distributors, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Figure E-14
SSA: Weighted-average delivered prices and quantities of domestic and imported product 3 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 3: Sodium sulfate anhydrous in 2,000 pound supersacs. ***.

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

Figure E-15
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to distributors, by quarter, January 2016-September 2019

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

Figure E-16
SSA: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to end users, by quarter, January 2016-September 2019

* * * * * * *

Product 4: Sodium sulfate anhydrous in 50 pound bags

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

U.S. producers' delivered prices increased in five of the eight instances, with increases ranging from *** to *** percent, in the remaining three instances, U.S. prices declined from *** to *** percent (table E-19). Delivered prices for SSA produced in Canada increased in two of the seven instances, price increases ranged from *** to *** percent. Canadian delivered prices declined in the remaining 5 instances from *** to *** percent.

Table E-19
SSA: Summary of weighted-average delivered prices for products 1-4 sales to distributors and to end users from the United States and Canada and landed duty paid value for Canadian importer/end users

Item	Number of quarters	Low price/cost (per short ton)	High price/cost (per short ton)	Change in price/cost (percent)
Product 1 to distributors: United States (delivered)	15	***	***	***
Canada (delivered)	13	***	***	***
Product 2 to distributors: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***
Product 3 to distributors: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***
Product 4 to distributors: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***
Product 1 to end users: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***
Product 2 to end users: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***
Product 3 to end users: United States (delivered)	15	***	***	***
Canada (delivered)	14	***	***	***
Product 4 to end users: United States (delivered)	15	***	***	***
Canada (delivered)	15	***	***	***

Note: Percentage change from the first quarter of 2016 to the third quarter of 2019. The price of Canadian delivered product 1 price sold to distributors increased by *** percent between the first quarter of 2016 to the second quarter of 2019.

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

In comparing delivered pricing data, delivered prices for product imported from Canada undersold delivered prices for U.S.-produced product in 47 of 117 instances (*** short tons) and oversold in 70 instances (*** short tons). A summary of margins of under and overselling is presented in table E-20.

Table E-20
SSA: Instances of underselling/overselling and the range and average of margins for delivered data, by country, January 2016-September 2019

Product, type of price, and channel of distribution	Underselling				
	Number of quarters	Quantity (short tons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1 delivered to distributors	---	***	***	***	***
Product 2 delivered to distributors	1	***	***	***	***
Product 3 delivered to distributors	15	***	***	***	***
Product 4 delivered to distributors	15	***	***	***	***
Subtotal – delivered to distributors	31	***	***	***	***
Product 1 delivered to end users	10	***	***	***	***
Product 2 delivered to end users	---	***	***	***	***
Product 3 delivered to end users	3	***	***	***	***
Product 4 delivered to end users	3	***	***	***	***
Subtotal – delivered to end users	16	***	***	***	***
Total-delivered underselling	47	***	***	***	***
Product, type of price, and channel of distribution	**(Overselling)**				
	Number of quarters	**Quantity (short tons)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1 delivered to distributors	13	***	***	***	***
Product 2 delivered to distributors	14	***	***	***	***
Product 3 delivered to distributors	---	***	***	***	***
Product 4 delivered to distributors	---	***	***	***	***
Subtotal – delivered to distributors	27	***	***	***	***
Product 1 delivered to end users	5	***	***	***	***
Product 2 delivered to end users	15	***	***	***	***
Product 3 delivered to end users	11	***	***	***	***
Product 4 delivered to end users	12	***	***	***	***
Subtotal – delivered to end users	43	***	***	***	***
Total-delivered overselling	70	***	***	***	***

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