Urea Ammonium Nitrate Solutions from Russia and Trinidad and Tobago

Investigation Nos. 701-TA-668-669 and 731-TA-1565-1566 (Final)

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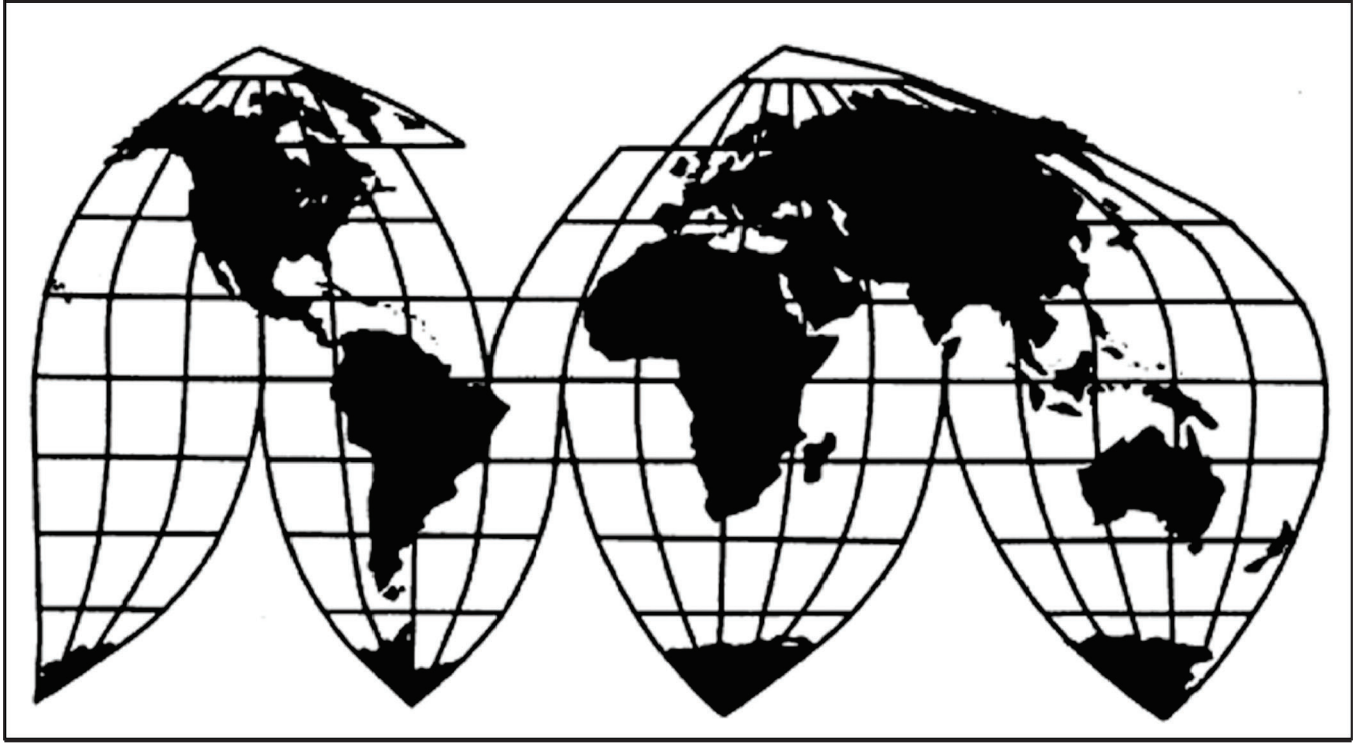

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-668-669 and 731-TA-1565-1566 (Final)

Urea Ammonium Nitrate Solutions from Russia and Trinidad and Tobago

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that an industry in the United States is not materially injured or threatened with material injury by reason of imports of urea ammonium nitrate solutions from Russia and Trinidad and Tobago, provided for in subheading 3102.80.00 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be subsidized by the governments of Russia and Trinidad and Tobago and to be sold in the United States at less than fair value ("LTFV").[2]

BACKGROUND

The Commission instituted these investigations effective June 30, 2021, following receipt of petitions filed with the Commission and Commerce by CF Industries Nitrogen, LLC and its subsidiaries, Terra Nitrogen, Limited Partnership and Terra International (Oklahoma) LLC, all of Deerfield, Illinois. The final phase of the investigations was scheduled by the Commission following notification of preliminary determinations by Commerce that imports of urea ammonium nitrate solutions from Russia and Trinidad and Tobago were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)) and sold at LTFV within the meaning of 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* on February 23, 2022 (87 FR 10241). The Commission conducted its hearing on June 16, 2022. All persons who requested the opportunity were permitted to participate.

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

[2] 87 FR 37836 and 87 FR 37828 (June 24, 2022) and 87 FR 37831 and 87 FR 37824 (June 24, 2022).

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is not materially injured or threatened with material injury by reason of imports of urea ammonium nitrate solutions ("UAN" or "UAN solutions") from Russia and Trinidad & Tobago found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value and subsidized by the governments of Russia and Trinidad & Tobago.

I. Background

Petitioner in these investigations is CF Industries Nitrogen, LLC, a producer of UAN, and its subsidiaries, Terra Nitrogen, Limited Partnership and Terra International (Oklahoma) LLC (collectively, "CF Industries" or "Petitioner"). Petitioner appeared at the hearing accompanied by counsel and submitted prehearing and posthearing briefs and final comments.[1]

Several respondent parties appeared at the hearing accompanied by counsel and each filed prehearing and posthearing briefs and final comments: Nevinnomyssky Azot, JSC and Azot, JSC, Russian producers/exporters of UAN, and EuroChem North America Corporation, an importer of UAN from Russia (collectively, "EuroChem"); Methanol Holdings (Trinidad) Limited ("MHTL"), a foreign producer/exporter in Trinidad & Tobago, and Helm Fertilizer Corporation ("HFC"), a U.S. importer of the subject merchandise from Trinidad & Tobago (jointly "Helm"); Gavilon Fertilizer, LLC ("Gavilon"), a U.S. purchaser of UAN and an importer of the subject merchandise from Russia; and International Raw Materials Ltd. ("IRM"), a purchaser of the subject merchandise from Russia. Public Joint Stock Company Acron and Acron USA Inc. ("Acron"), a foreign producer/exporter in Russia and its affiliated U.S. importer, appeared at the hearing accompanied by counsel and filed prehearing and posthearing briefs. In addition, the American Soybean Association, National Corn Growers Association, National Cotton Council of America, National Sorghum Producers, and the Agricultural Retailers Association filed a joint *amicus curiae* prehearing brief, and the National Corn Growers Association appeared at the hearing accompanied by counsel.

U.S. industry data are based on the questionnaire responses of eight producers, believed to account for the vast majority of U.S. production of UAN in 2021.[2] U.S. import data

[1] In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its public hearing by video conference held on June 16, 2022, as set forth in procedures provided to the parties.

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

are based on official U.S. import statistics under HTS statistical reporting number 3102.80.0000.[3] The Commission received questionnaire responses from 12 importers of UAN, whose imports accounted for *** percent of U.S. imports from Russia, *** percent of U.S. imports from Trinidad & Tobago, and *** percent of U.S. imports from nonsubject sources in 2021 based on official U.S. import statistics.[4] The Commission received questionnaire responses from three foreign producers of subject merchandise: two producers/exporters in Russia, whose exports accounted for approximately *** percent of U.S. imports of subject merchandise from Russia in 2021,[5] and one producer/exporter in Trinidad & Tobago, whose exports accounted for *** percent of U.S. imports of subject merchandise from Trinidad & Tobago in 2021.[6]

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."[7] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[8] In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[9]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by Commerce.[10]

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[3] CR/PR at I-4 and IV-1.
[4] CR/PR at IV-1.
[5] CR/PR at VII-3.
[6] CR/PR at VII-11.
[7] 19 U.S.C. § 1677(4)(A).
[8] 19 U.S.C. § 1677(4)(A).
[9] 19 U.S.C. § 1677(10).
[10] 19 U.S.C. § 1677(10). The Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See*, *e.g.*, *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

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."[11] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[12]

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[13] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[14] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[15]

B. Product Description

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

---

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

[12] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington 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).

[13] *See, e.g.*, *Cleo*, 501 F.3d at 1299; *NEC Corp. v. Dep't of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

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

[15] *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.").

> … {A}ll mixtures of urea and ammonium nitrate in aqueous or ammonia solution, regardless of nitrogen concentration by weight, and regardless of the presence of additives, such as corrosion inhibiters and soluble micro or macronutrients (UAN).
>
> Subject merchandise includes merchandise matching the above description that has been processed in a third country, including by commingling, diluting, adding or removing additives, or performing any other processing that would not otherwise remove the merchandise from the scope of the investigations if performed in the subject country.
>
> The scope also includes UAN that is comingled with UAN from sources not subject to this investigation. Only the subject component of such comingled products is covered by the scope of this investigation.
>
> The covered merchandise is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheading 3102.80.0000. Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the scope is dispositive.[16]

UAN is a liquid nitrogen fertilizer composed of two independent fertilizers -- urea and ammonium nitrate. The two fertilizers activate at different time scales, with ammonium nitrate rapidly making its nitrogen content available to crops while urea provides a slower release. It is most commonly, but not exclusively, applied to row crops like corn. Because UAN is in liquid form, it can more easily be mixed with other plant nutrients or other agricultural chemicals, unlike solid nitrogen fertilizers. UAN is favored by some users because of its nitrogen content and its ease of handling and application. Although UAN is less nitrogen-dense than alternative forms of fertilizer, it is substantially less volatile in that more of the nitrogen remains in the soil over time. UAN can be easily sprayed onto fields, included in irrigation systems, or applied with other farm implements. Unlike ammonia, UAN can be stored at ambient pressures. Although

[16] *See Urea Ammonium Nitrate Solutions from the Russian Federation: Final Determination of Sales at Less Than Fair Value*, 87 Fed. Reg. 37831, 37833 (June 24, 2022) ("Final AD Determination/Russia"); *Urea Ammonium Nitrate Solutions from the Russian Federation: Final Affirmative Countervailing Duty Determination*, 87 Fed. Reg. 37836, 37837 (June 24, 2022) ("Final CVD Determination/Russia"); *Urea Ammonium Nitrate Solutions from the Republic of Trinidad and Tobago: Final Affirmative Determination of Sales at Less Than Fair Value*, 87 Fed. Reg. 37824, 37825 (June 24, 2022) ("Final AD Determination/Trinidad & Tobago"); and *Urea Ammonium Nitrate Solutions from the Russian Federation: Final Affirmative Countervailing Duty Determination*, 87 Fed. Reg. 37828 (June 24, 2022) ("Final CVD Determination/Trinidad & Tobago").

UAN is manufactured year-round, it is only applied during specific parts of the planting season, particularly during a six-week window in the spring to coincide with emergent crop growth, unlike other fertilizers that are applied throughout the growing season.[17]

C. Arguments of the Parties

Petitioner argues that the Commission should define a single domestic like product, coextensive with the scope of Commerce's investigations, as it did in its preliminary determinations.[18] No party has expressed opposition to the Petitioner's proposed definition of the domestic like product.[19]

D. Analysis

In the preliminary determinations, the Commission defined a single domestic like product comprised of UAN solutions, coextensive with the scope of Commerce's investigations. The Commission found a clear dividing line between UAN and other nitrogen fertilizers that were outside the scope based on an analysis of its six like product factors. Specifically, it found that UAN and other nitrogen fertilizers have different physical characteristics and limited interchangeability. In addition, it found that domestic producers did not produce other nitrogen fertilizers in their UAN facilities, and that prices differed between UAN and other nitrogen fertilizers, with UAN commanding a price premium.[20]

There is no new evidence in the final phase of these investigations that would warrant our reconsideration of the definition of the domestic like product from the preliminary determinations. Therefore, based on the record and in the absence of any contrary argument, we define a single domestic like product consisting of UAN solutions, coextensive with the scope of Commerce's investigations.

III. Domestic Industry and Related Parties

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

[17] CR/PR at I-12 to I-17.

[18] Petitioner Prehearing Brief at 7-8.

[19] *See* CR/PR at I-16 to I-17; *see also* Gavilon Prehearing Brief at 5 and Helm Prehearing Brief at 4.

[20] *See Urea Ammonium Nitrate Solutions from Russia and Trinidad and Tobago*, Inv. Nos. 701-TA-668-669 and 731-TA-1565-1566 (Preliminary), USITC Pub. 5226 (August 2021) at 8-9.

a major proportion of the total domestic production of the product."[21] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

In its preliminary determinations, the Commission defined the domestic industry to include all U.S. producers of UAN.[22] No party has proposed a different domestic industry definition.

These investigations raise the issue of whether appropriate circumstances exist to exclude a domestic producer from the domestic industry as a related party pursuant to the related parties provision in section 771(4)(B) of the Tariff Act.[23] This provision of the statute allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of the subject merchandise, or which themselves are importers.[24] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[25]

The record indicates that *** qualifies for possible exclusion under the related parties provision because its ***, imported subject UAN from *** during the January 2019-December 2021 period of investigation ("POI").[26] No party argued for the exclusion of any related party.

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[21] 19 U.S.C. § 1677(4)(A).

[22] *See* USITC Pub. 5226 at 9-10.

[23] 19 U.S.C. § 1677(4)(B).

[24] 19 U.S.C. § 1677(4)(B). *See Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.,* 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

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

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

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

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

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

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

[26] CR/PR at III-2 and Table III-15; *** Importer Questionnaire Response, EDIS Doc. 767603 at I-3, I-5, and II-5a.

*** was the *** largest domestic producer of UAN in 2021, accounting for *** percent of domestic production of UAN that year.[27] The ratio of the affiliated importer's subject imports to *** domestic production was *** percent in 2019, *** percent in 2020, and *** percent in 2021.[28] *** stated that it imported subject UAN from ***.[29] ***.[30]

Imports of subject merchandise by ***, were small in relation to *** domestic production, and *** did not itself import subject merchandise. There is no indication that *** relationship with *** caused it to perform differently than other domestic producers. Given the above, we find that appropriate circumstances do not exist to exclude *** from the domestic industry under the related parties provision. Accordingly, we define the domestic industry to include all U.S. producers of UAN.

IV. Cumulation[31]

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

(1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including

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

[28] CR/PR at Table III-15.

[29] CR/PR at Table III-16.

[30] CR/PR at Table III-1 and *** Domestic Producer Questionnaire Response, EDIS Doc. *** at I-4.

[31] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

Subject imports from each subject country exceed the statutory negligibility threshold with respect to each investigation. Specifically, from June 2020 through May 2021, the 12-month period preceding the filing of the petitions, imports from Russia accounted for 39.7 percent of total imports of UAN by quantity and imports from Trinidad & Tobago accounted for 36.6 percent. CR/PR at IV-8 and Table IV-3. The subject imports are the same quantity for the countervailing and antidumping duty investigations for each subject country. We find that imports from each of the subject countries for the respective antidumping and countervailing duty investigations are not negligible.

consideration of specific customer requirements and other quality related questions;

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

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

(4) whether the subject imports are simultaneously present in the market.[32]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.[33] Only a "reasonable overlap" of competition is required.[34]

One of the four statutory exceptions to the general cumulation rule applies to these investigations because Trinidad & Tobago is a beneficiary country under the Caribbean Basin Economic Recovery Act ("CBERA"). Under the CBERA exception to cumulation in the statute, subject imports from Trinidad & Tobago may only be cumulated with imports from another CBERA country for purposes of determining material injury, or threat thereof, by reason of imports from the CBERA beneficiary country or countries.[35] Consequently, the Commission may not cumulate subject imports from Russia with subject imports from Trinidad & Tobago for purposes of its injury and threat determinations with respect to subject imports from Trinidad & Tobago. The CBERA exception, however, does not bar the Commission from cumulating subject imports from Trinidad & Tobago with subject imports from Russia for the purposes of

[32] See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), aff'd, Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898 (Ct. Int'l Trade), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

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

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

[35] 19 U.S.C. § 1677(7)(G)(ii)(III).

determining material injury, or threat thereof, by reason of subject imports from Russia. Rather, if the prerequisites for cumulation are otherwise satisfied, the Commission is required to cumulate subject imports from Trinidad & Tobago with those from Russia for purposes of its material injury analysis for Russia.[36]

A. Arguments of the Parties

Petitioner's Argument. Petitioner argues that the Commission should cumulatively assess imports from Russia and Trinidad & Tobago for the purposes of its injury analysis of subject imports from Russia because the statutory criteria for cumulation are met.[37] In its view, the record indicates that there is a reasonable overlap of competition between and among subject imports from Russia and Trinidad & Tobago, and the domestic like product.[38]

Respondents' Arguments. Helm argues that the Commission may not cumulate subject imports from Russia and Trinidad & Tobago for purposes of its injury analyses concerning Trinidad & Tobago under the statutory exception to cumulation for CBERA beneficiary countries.[39] Helm made no arguments with respect to cumulation for the Commission's analysis of subject imports from Russia. IRM and Gavilon took no position with respect to cumulation.[40] No other parties commented on whether the Commission should cumulate subject imports in these investigations for determining present material injury.[41]

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[36] *See Melamine from China and Trinidad and Tobago*, Inv. Nos. 701-TA-526-527 and 731-TA-1262-1263 (Final), USITC Pub. 4585 at 8-10 (Dec. 2015) (applying CBERA exception to cumulation for purposes of determination involving melamine from Trinidad & Tobago, but cumulating imports from China and Trinidad & Tobago for purposes of determination on subject imports from China). In *Caribbean Ispat Ltd. v. United States*, 450 F. 3d 1336, 1339 (Fed. Cir. 2006), the Federal Circuit suggested, although it did not explicitly state, that while CBERA imports can form part of an affirmative determination concerning the other subject imports (providing the cumulation criteria are satisfied), non-CBERA subject imports cannot be considered as a factor supporting an affirmative determination for the subject CBERA countries.

[37] Petitioner Prehearing Brief at 24-26.

[38] Petitioner Prehearing Brief at 26-29.

[39] Helm Prehearing Brief at 21-22.

[40] *See* Gavilon Prehearing Brief at 6; Hearing Transcript, EDIS Doc. 773743 at 265 (Jacobson and O'Neill).

[41] EuroChem made no arguments concerning cumulation for the present material injury analysis; rather, it argues that the Commission should exercise its discretion to not cumulate subject imports from Russia with those of Trinidad & Tobago for purposes of its threat of material injury analysis. *See* EuroChem Prehearing Brief at 2-4.

B. Analysis

We consider subject imports from Russia and Trinidad & Tobago on a cumulated basis for our analysis of injury by reason of subject imports from Russia because the statutory criteria for cumulation are satisfied. As an initial matter, Petitioner filed the antidumping and countervailing duty petitions on imports from both countries on the same day, June 30, 2021.[42]

In its preliminary determinations, the Commission found that UAN was a fungible, commodity-type product that is interchangeable regardless of source; domestically produced UAN and subject imports from both countries were sold in overlapping channels of distribution and in overlapping geographic regions; and UAN from domestic producers and the subject countries were simultaneously present in the market throughout the POI. Thus, the Commission found a reasonable overlap of competition between and among subject imports and the domestic like product, and cumulated subject imports from Russia and Trinidad & Tobago for its injury analysis of subject imports from Russia. Because Trinidad & Tobago is a CBERA beneficiary country, the Commission did not cumulate subject imports from Trinidad & Tobago with subject imports from Russia for its injury analysis of subject imports from Trinidad & Tobago.[43]

As discussed below, we find that the record in the final phase of the investigations continues to show a reasonable overlap of competition between and among UAN produced in Russia, Trinidad & Tobago, and the United States.

Fungibility. UAN is a fungible product, and the record indicates that there are no significant product differences between and among subject imports from Russia, Trinidad & Tobago and the domestic like product. UAN produced in the United States is chemically identical to UAN imported from Russia and Trinidad & Tobago.[44] All domestic producers and all reporting importers, as well as the vast majority of purchasers, reported that imports from both subject countries are always or frequently interchangeable with each other and the domestic like product.[45] A majority of U.S. producers reported that differences other than price between the domestic product and subject imports from each country were never significant.[46] Half of responding U.S. purchasers reported that differences other than price between U.S. and

[42] CR/PR at I-1.

[43] *See* USITC Pub. 5226 at 12-14.

[44] CR/PR at IV-9 and Table IV-4.

[45] CR/PR at Tables II-12, II-13, and II-14.

[46] CR/PR at Table II-15. In contrast, a majority of importers reported that there were always or frequently significant differences other than price between UAN produced in the United States and in other countries. CR/PR at Table II-16.

Russian product were always or frequently significant and half reported they were sometimes or never significant.[47] Thirteen of 23 purchasers reported that differences other than prices between U.S. and Trinidadian product were sometimes or never significant.[48] Most importers and purchasers that reported differences other than price agreed that there were no differences in the quality or characteristics of the UAN produced in different countries.[49] Consequently, the record indicates that the domestic like product and UAN from each subject source are fungible.

Channels of Distribution. Domestic producers and importers of subject merchandise from Russia sold UAN to both wholesalers/distributors and retailers, with a majority of the domestic industry's shipments sold to the wholesaler/distributor channel and a majority of imports from Russia sold to the retailer channel.[50] Subject imports from Trinidad & Tobago were sold *** to wholesalers/distributors. Although there were some differences in concentration, the domestic product and imports from both subject countries overlapped substantially in the wholesaler/distributor channel.[51]

Geographic Overlap. Domestically produced UAN and imports of UAN from both subject countries were sold in all regions of the contiguous United States, with the exception that ***.[52]

Simultaneous Presence in Market. Import data show that subject imports from Russia were imported in the U.S. market in every month of the POI and subject imports from Trinidad & Tobago were imported in 35 of 36 months of the POI.[53] Monthly pricing data show the domestic product and imports from both subject countries being sold in the U.S. market in every month of the POI.[54]

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[47] CR/PR at Table II-17.

[48] CR/PR at Table II-17.

[49] CR/PR at II-34. Reported differences other than price were in availability/reliability of supply particularly in coastal regions, transportation networks/costs, and locations served. *Id*.

[50] CR/PR at Table II-1.

[51] CR/PR at II-3 and Table II-1. The domestic industry's shipments to the wholesaler/distributor channel ranged from 65.7 to 67.1 percent of total U.S. shipments; importers' shipments of UAN from Russia to the wholesaler/distributor channel ranged from *** percent of total U.S. shipments; and importers' shipments of UAN from Trinidad & Tobago to the wholesaler/distributor channel accounted for *** percent of total U.S. shipments during the POI. CR/PR at Table II-1.

[52] CR/PR at II-5 and Table II-2.

[53] CR/PR at IV-15 to IV-18, Table IV-7, and Figure IV-4. Subject imports from Russia were present in every month from January 2019 through December 2021, while subject imports from Trinidad & Tobago were present in each month of the POI except October 2019. *Id*.

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

Conclusion. We consider subject imports from Trinidad & Tobago on an individual basis for purposes of the material injury and threat analyses of subject imports from Trinidad & Tobago, pursuant to the statutory exception to cumulation for CBERA beneficiary countries. The CBERA exception, however, does not prohibit the Commission from cumulating subject imports from Trinidad & Tobago with subject imports from Russia for purposes of our material injury analysis or threat analysis of subject imports from Russia. The record shows that there is a reasonable overlap of competition between and among subject imports from Russia and Trinidad & Tobago and the domestic like product. Accordingly, we consider subject imports from Russia and Trinidad & Tobago on a cumulated basis for purposes of our analysis of material injury by reason of subject imports from Russia.

V. 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.[55] 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.[56] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[57] 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.[58] 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."[59]

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."[60]

[55] 19 U.S.C. §§ 1671d(b), 1673d(b).

[56] 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).

[57] 19 U.S.C. § 1677(7)(A).

[58] 19 U.S.C. § 1677(7)(C)(iii).

[59] 19 U.S.C. § 1677(7)(C)(iii).

[60] 19 U.S.C. § 1677(7)(C)(i).

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."[61]

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.[62]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[63] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[64] 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,[65] 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.[66] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the

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[61] 19 U.S.C. § 1677(7)(C)(i).

[62] 19 U.S.C. § 1677(7)(C)(ii).

[63] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[64] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the TPEA of 2015, Pub. L. 114-27.

[65] 19 U.S.C. §§ 1671d(b), 1673d(b).

[66] *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).

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.[67]

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.[68] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[69] Nor does

[67] The Federal Circuit, in addressing the causation standard of the statute, observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." *Nippon Steel Corp. v. U.S. Int'l Trade Comm'n*, 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. U.S. Int'l Trade Comm'n*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

[68] 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.

[69] 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*

the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[70] It is clear that the existence of injury caused by other factors does not compel a negative determination.[71]

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."[72] 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."[73] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[74]

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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.").

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

[71] *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.").

[72] *Mittal Steel*, 542 F.3d at 876 and 878; *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*.

[73] *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.

[74] *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.").

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.[75] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[76]

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."[77] 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.[78] In making our determination, we consider all statutory threat factors that are relevant to these investigations.[79]

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

[76] *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 *quoting* 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.")).

[77] 19 U.S.C. § 1677(7)(F)(ii).

[78] 19 U.S.C. § 1677(7)(F)(ii).

[79] These factors are as follows:

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

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

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

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

(V) inventories of the subject merchandise,

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

…

VI. 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.

A. Demand Conditions

U.S. demand for UAN depends on the demand for domestically produced agricultural products, with weather, crop rotations, fertilizer use rates, crop prices relative to fertilizer prices, and UAN prices relative to other nitrogen fertilizer prices also affecting demand.[80] UAN is used as a fertilizer by farmers in all regions of the United States. It is sold in various nitrogen contents by weight, with the 32-percent solution being the most widely used.[81] UAN is produced year-round, but farmers primarily apply UAN to field crops in the spring months (typically during a 6-week "application season" that occurs from April into June). While U.S. producers' sales also occur year-round, a large portion occur during the "summer fill" program which usually occurs July through September with delivery to wholesalers/distributors and retailers in advance of the spring application season.[82]

A majority of responding U.S. producers, importers, and purchasers reported that U.S. demand increased or fluctuated over the POI; one market participant (a responding purchaser) reported that demand had decreased.[83] The quantity of apparent U.S. consumption of UAN fluctuated and declined overall by 2.9 percent from 2019 to 2021. It initially increased from

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(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 (I), (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 factor (VII) concerning agricultural products is inapplicable to this investigation.

[80] CR/PR at II-17.

[81] CR/PR at II-1.

[82] CR/PR at II-1 and n.3, and II-13 to II-14. Reported U.S. shipments during the summer fill months accounted for about *** percent of all U.S. shipments during the POI, and Petitioner asserted that it aimed "to sell a quarter to half of {its} annual production during summer fill." *Derived from id.* at Tables V-3 and V-4; *see also* Hearing Transcript, EDIS Doc. 773743 at 50-51 (O'Connell).

[83] CR/PR at Table II-5.

14.8 million short tons in 2019 to 15.1 million short tons in 2020, before decreasing to 14.4 million short tons in 2021.[84]

B. Supply Conditions

During the POI, the domestic industry was the largest source of UAN supply in the U.S. market.[85] The domestic industry's U.S. shipments increased from 11.62 million short tons in 2019 to 12.44 million short tons in 2020, before decreasing to 11.60 million short tons in 2021, for an overall decrease of 0.2 percent. The domestic industry's share of the U.S. market increased 2.2 percentage points over the POI, from 78.6 percent of apparent U.S. consumption in 2019 to 82.3 percent in 2020 before declining to 80.8 percent in 2021.[86] Of the eight responding domestic producers, Petitioner is ***, accounting for *** percent of domestic UAN production in 2021.[87] The domestic industry's reported capacity increased modestly, by 1.1 percent, over the POI. [88]

Cumulated subject imports were the second largest source of UAN in the U.S. market during the POI but decreased in volume and as a share of apparent U.S. consumption over the period. Cumulated subject imports declined by 21.3 percent over the POI, from 2.6 million short tons in 2019 to 2.2 million short tons in 2020 and 2.1 million short tons in 2021.[89] As a share of apparent U.S. consumption they declined from 17.9 percent in 2019 to 14.4 percent in 2020 before increasing to 14.5 percent in 2021, a level 3.4 percentage points lower than in

[84] CR/PR at IV-19 and Table IV-8. As measured by reported U.S. shipments of imports, apparent U.S. consumption increased from 14.6 million short tons in 2019 to 15.0 million short tons in 2020 before declining to 14.1 million short tons in 2021. CR/PR at Table K-1.

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

[86] CR/PR at Table IV-8. The domestic industry's share of apparent U.S. consumption based on U.S. shipments of imports was 79.6 percent in 2019, 83.1 percent in 2020, and 82.1 percent in 2021. CR/PR at Table K-1.

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

[88] CR/PR at Table III-4. Notwithstanding their reported production capacity, four U.S. producers reported that they had experienced supply constraints between January 1, 2019, and the filing of the petition on June 30, 2021, and three U.S. producers reported experiencing supply constraints after the filing of the petition. Supply constraints reported by domestic producers include unplanned production outages, freeze events, planned turnarounds, and planned outages for maintenance. CR/PR at II-11. Petitioner reported that temporary supply outages occurred during the POI due to weather events including flooding of the Mississippi River in 2019, and winter storm Uri and *** in 2021. CR/PR at Table III-3; Hearing Transcript, EDIS Doc. 773743 at 45 (Bilby), 87-88 and 156-157 (Will).

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

2019.[90] Russia and Trinidad & Tobago were the largest and second largest country sources of imports of UAN to the U.S. market during the POI, respectively. [91]

Nonsubject imports were the smallest source of supply to the U.S. market throughout the POI, although their market share increased somewhat over the period. Nonsubject imports as a share of apparent U.S. consumption declined from 3.5 percent in 2019 to 3.3 percent in 2020 before increasing to 4.7 percent in 2021.[92] Canada was the largest source of nonsubject imports, accounting for the majority of such imports during the POI.[93]

The record indicates that the supply of UAN can be affected by transportation, planned and unplanned production outages, and adverse weather events.[94] [95]

[90] CR/PR at Table IV-8. Similarly, the market share of cumulated subject imports based on U.S. importers' U.S. shipments was 17.4 percent in 2019, 13.8 percent in 2020, and 14.1 percent in 2021. CR/PR at Table K-1.

[91] CR/PR at Table IV-2. Subject imports from Russia as a share of apparent U.S. consumption were 11.5 percent in 2019, 7.8 percent in 2020, and 8.1 percent in 2021. The market share of subject imports from Trinidad & Tobago was 6.4 percent in 2019, 6.6 percent in 2020, and 6.4 percent in 2021. CR/PR at Table IV-8.

The market share of subject imports from Russia based on U.S. importers' U.S. shipments was *** percent in 2019, *** percent in 2020, and *** percent in 2021. The market share of subject imports from Trinidad & Tobago based on U.S. importers' U.S. shipments was *** percent in 2019, *** percent in 2020, and *** percent in 2021. CR/PR at Table K-1.

[92] CR/PR at Table IV-8. As measured using importers' U.S. shipments of imports, the market share of nonsubject imports was 3.0 percent in 2019 and 2020 and 3.8 percent in 2021. CR/PR at Table K-1.

[93] CR/PR at IV-2.

[94] CR/PR at II-11 to II-12, II-16, VI-7 n.11, and VI-9 n.16. Examples of weather events affecting supply include transportation delays and production outages due to storms or flooding. *Id*. *See also* Hearing Transcript, EDIS Doc. 773743 at 45 (Bilby) and 88, 92, and 156-157 (Will) (discussing Mississippi River flooding in 2019 and winter storm Uri in 2021).

[95] Six of ten responding importers reported that they had experienced supply constraints between January 1, 2019, and the filing of the petitions, and seven reported experiencing supply constraints since the filing of the petitions. CR/PR at II-11. Twenty-three of 33 responding purchasers reported experiencing supply constraints between January 1, 2019, and the filing of the petitions, and 21 of 30 purchasers reported experiencing supply constraints since the filing of the petitions. *Id.* Supply constraints reported by importers and purchasers include limited sources for coastal delivery, domestic producer allocation, transportation and late deliveries, availability and reliability of supply, and adverse weather conditions. CR/PR at II-11 to II-12. Several purchasers identified issues specifically relating to supply from Petitioner. *Id.*

C. Substitutability and Other Conditions

We find that there is a moderate-to-high degree of substitutability between domestically produced UAN and subject imports.[96] UAN is chemically identical regardless of manufacturer.[97] All responding domestic producers and importers, and nearly all responding purchasers, reported that imports from both subject countries are "always" or "frequently" interchangeable with each other and the domestic like product.[98] Most purchasers reported that subject imports from Russia and the domestic like product were comparable on 13 of 17 purchasing factors, and that subject imports from Trinidad & Tobago and the domestic like product were comparable in 15 of 17 purchasing factors.[99]

Substantial numbers of importers and purchasers reported that differences other than price between subject imports and the domestic product were always or frequently significant.[100] Most importers and purchasers that reported differences other than price being significant in their purchases of UAN agreed that there were no differences in the UAN product produced in different countries.[101] Rather, the reported differences included availability/reliability of supply, particularly in coastal regions, transportation networks/costs, and locations served.[102] Additionally, a number of purchasers reported that U.S. producers faced high transportation costs or other transportation constraints for shipments to the coastal

[96] CR/PR at II-22. The degree of substitutability between UAN from domestic and subject sources depends upon the extent of product differentiation between domestic and imported products and reflects how easily purchasers can switch from domestically produced UAN to the UAN imported from subject countries (or vice versa). The degree of substitutability may be affected by such factors as relative prices, quality differences, and differences in sales conditions. *Id*. at II-22 n.64.

[97] Hearing Transcript, EDIS Doc. 773743 at 39 (Bilby); CR/PR at Table F-5.

[98] CR/PR at Tables II-12 to II-14. One of 26 U.S. purchasers reported that the domestic like product and subject imports from Russia, and subject imports from Trinidad & Tobago and Russia were sometimes interchangeable. CR/PR at Table II-14.

[99] CR/PR at Table II-11.

[100] Six of 10 importers reported that differences other than price were always or frequently significant when comparing UAN from the U.S. and Russia, and five of eight reported the same when comparing UAN from the United States and Trinidad & Tobago. CR/PR at Table II-16. Twelve of 24 purchasers reported that differences other than price between U.S. and Russian product were always or frequently significant. CR/PR at Table II-17. Ten of 23 purchasers reported that differences other than price between U.S. and Trinidadian product were always or frequently significant. *Id*. In contrast, all U.S. producers reported that differences other than price between the domestic product and subject imports from Russia and Trinidad & Tobago were sometimes or never significant. CR/PR at Table II-15.

[101] CR/PR at II-34.

[102] CR/PR at II-34. *See also* CR/PR at II-7, II-11 to II-12, II-28 n.72, II-33, and Tables II-3 and Appendix E.

regions.[103] Thus, the record indicates that purchasers reported some differences in availability, particularly with respect to the coastal regions where imported UAN was reported to be more widely available than domestically produced UAN, and this may reduce substitutability for some purchasers.[104]

The record also indicates that price is an important factor in purchasing decisions, along with availability. Responding purchasers reported price and availability most frequently among their top three purchasing factors; price was the most frequently cited first-most important factor, followed by availability/supply, and both were also most frequently reported as the second-most important purchasing factor.[105] Price was also among the factors that responding purchasers cited most frequently as being very important to their purchasing decisions, although a greater number of purchasers cited availability, reliability of supply, and quality meets industry standards as very important purchasing factors.[106] A majority of responding

[103] CR/PR at II-5 to II-6. Domestic producer CF Industries reportedly operated only one Jones Act vessel prior to the filing of the petition. *See* CR/PR at II-7 n.19 and Hearing Transcript, EDIS Doc. 773743 at 85 (McLain). The Jones Act is a federal law mandating that goods shipped between U.S. ports be transported on U.S.-flagged ships that are built, owned, and operated by United States citizens or permanent residents. *See* 46 U.S.C. § 50102; *see also* EuroChem Purchaser Questionnaire Response, EDIS Doc. 768571 at III-15. The domestic industry also reportedly faces high costs and additional constraints in selling to coastal regions due to issues with rail shipping such as the increased costs of shipping west over the Rocky Mountains and east across the Mississippi River, and freight restrictions imposed by Union Pacific. CR/PR at II-16; Gavilon Prehearing Brief at 10, 15; Helm Prehearing Brief at 5-12, 15. Petitioner, however, reported that its transportation costs were comparable to subject importers' costs and that the logistics disruptions from Union Pacific were minor as Petitioner was able to temporarily adjust its distributions network in 2019 and Union Pacific withdrew its recent request for reduced shipments after protest by Petitioner and others. *See* Petitioner Posthearing Brief, Responses to Questions at 7-10; *see also* Hearing Transcript, EDIS Doc. 773743 at 45-46 (Bilby).

[104] *See* CR/PR at II-5 to II-6; *see also* CR/PR at II-7, II-11 to II-12, II-28 n.72, II-33, and Tables II-3 and E-1 to E-4. When comparing subject imports to the domestic product across a range of purchasing factors, a plurality of purchasers reported that the domestic product was comparable to subject imports from Russia as to availability, and half the responding purchasers reported they were superior as to geographic proximity. CR/PR at Table II-11. Pluralities of purchasers reported that the domestic product was superior to subject imports from Trinidad & Tobago as to availability and geographic proximity. *Id*.

The domestic industry shipped a substantial majority, between *** and *** percent, of its U.S. shipments to the Central region in each year of the POI, while importers shipped a substantial majority, between *** and *** percent, of their shipments from subject sources to the Eastern and Western regions in each year of the POI. CR/PR at Tables E-1 and E-4. The record also reflects that the domestic industry and cumulated subject imports supplied the Eastern region with *** volumes, and there were more shipments of domestically produced UAN than subject imports to the Western region in each year of the POI. *Id.*

[105] CR/PR at Table II-7.

[106] CR/PR at Table II-8.

purchasers (22 of 33) reported that that they usually purchase the lowest-priced UAN.[107]

Natural gas is the major feedstock from which UAN is produced, as ammonia is manufactured from natural gas, which in turn is used to produce urea and ammonium nitrate.[108] Natural gas prices decreased during 2019 and the first half of 2020 before increasing through the rest of the POI, for an overall increase of 20.9 percent from January 2019 to December 2021.[109] Raw materials as a share of the total cost of goods sold ("COGS") reported by U.S. producers increased irregularly over the POI, and were 31.2 percent in 2019, 27.9 percent in 2020, and 39.4 percent in 2021.[110]

Freight costs for the transportation of UAN can account for a substantial portion of the purchase cost of UAN.[111] UAN can be transported by rail, truck, ship, and barge to and from terminals, depending on the local distribution network's infrastructure, although transport requires special tanks and storage facilities.[112]

The domestic industry and importers predominantly sold UAN though short-term contracts, which accounted for *** percent of the domestic industry's U.S. shipments in 2021 and for *** percent of importers' U.S. shipments that year.[113] The domestic industry sold the remainder of its U.S. shipments in 2021 through spot sales (*** percent), long-term contracts (*** percent), and annual contracts (*** percent). Importers sold the remainder of their U.S. shipments in 2021 through annual contracts (*** percent), spot sales (*** percent), and long-term contracts (*** percent).[114]

In April 2019, the European Union ("EU") imposed provisional antidumping duties on imports of UAN from Russia, Trinidad & Tobago, and the United States, followed by final duties in October 2019.[115]

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[107] CR/PR at II-24.

[108] CR/PR at V-1.

[109] CR/PR at V-1 and Figure V-1. Petitioner claims that prices for UAN are not affected by variations in the U.S. prices for natural gas. *See* Hearing Transcript, EDIS Doc. 773743 at 146-149 (Will) and 152 (Szamosszegi); *see also* Petitioner Posthearing Brief at 9-10. The record shows however, that UAN prices generally tracked movements in the U.S. price of natural gas during the POI. *Compare* CR/PR at Figure V-1 *with id.* at Figures V-3-4; *see also id.* at II-10 n.28, V-1 to V-2 and n.7 (one domestic producer suspended UAN production due to spike in natural gas prices in February 2021).

[110] CR/PR at VI-1.

[111] CR/PR at V-4 to V-5.

[112] CR/PR at I-15 to I-16.

[113] CR/PR at Table V-2. Domestic producers' short-term contracts ranged from 84 to 95 days while importers' short-term contracts ranged from 30 to 120 days. CR/PR at V-8.

[114] CR/PR at Table V-2.

[115] CR/PR at II-10 and VII-19.

VII. Determinations on Subject Imports from Russia

A. No Material Injury by Reason of Cumulated Subject Imports

1. Volume of Cumulated Subject Imports

The volume of cumulated subject imports steadily declined in the U.S. market during the POI, from 2.6 million short tons in 2019 to 2.2 million short tons in 2020 and 2.1 million short tons in 2021, for an overall decrease of 21.3 percent from 2019 to 2021.[116] [117]

The market share of cumulated subject imports declined irregularly between 2019 and 2021; as a share of apparent U.S. consumption, cumulated subject imports were 17.9 percent in 2019, 14.4 percent in 2020, and 14.5 percent in 2021, and thus declined overall by 3.4 percentage points during the POI.[118] [119]

We find that the volume of cumulated subject imports was significant both in absolute terms and relative to U.S. consumption. For the reasons discussed below, however, we do not find that cumulated subject imports had either significant price effects or a significant impact on the domestic industry.

2. Price Effects of the Cumulated Subject Imports

As discussed in section VI.C, the record indicates a moderate-to-high degree of substitutability between subject imports and the domestic like product, and that price is an important consideration in purchasing decisions, among other important factors.[120]

The Commission collected monthly f.o.b. pricing data on sales of two UAN products: 32 percent UAN sold to unrelated U.S. retailers and 32 percent UAN shipped to unrelated

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

[117] Petitioner argues that subject imports surged in 2019, went into inventories in summer 2019, and continued to be available for the 2020 spring application and summer fill. *See* Petitioner Prehearing Brief at 38-39. We acknowledge that historical import data show that the volume of subject imports was higher in 2019 than in 2018, with 2.0 million short tons of subject imports in 2018 and 2.6 million short tons in 2019. CR/PR at Table H-1. As discussed in more detail in the Price Effects discussion, however, we are unpersuaded by Petitioner's arguments regarding an inventory build-up in the domestic market. Moreover, any increase between 2018 and 2019 does not change the trends we see on the record during the POI, with cumulated subject import volume and market share both declining.

[118] CR/PR at Table IV-8. Similarly, when measured using importers' U.S. shipments of imports, cumulated subject imports market share was 17.4 percent in 2019, 13.8 percent in 2020, and 14.1 percent in 2021. CR/PR at Table K-1.

[119] The volume of cumulated subject imports relative to U.S. production decreased from 20.8 percent in 2019 to 16.8 percent in 2020 and 2021. CR/PR at Table IV-2.

[120] CR/PR at II-22 to II-24.

wholesalers/distributors during the POI.[121] Seven U.S. producers and nine importers provided usable pricing data, although not all firms reported pricing for each product for all months.[122] The pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of UAN, *** percent of U.S. shipments of subject imports from Russia, and *** percent of U.S. shipments of subject imports from Trinidad & Tobago in 2021.[123]

The pricing data show that cumulated subject imports undersold the domestic like product in 39 of 108 monthly comparisons, or 36.1 percent of the time, at margins ranging between 0.1 and 22.1 percent and averaging 8.0 percent.[124] Cumulated subject imports oversold the domestic like product in the remaining 69 of 108 monthly comparisons, or 63.9 percent of the time, at margins ranging between 0.1 and 47.0 percent and averaging 14.3 percent.[125] Months in which subject imports undersold the domestic product accounted for 41.9 percent of the reported volume of cumulated subject import sales (2.5 million short tons), and months in which subject imports oversold the domestic product accounted for 58.1 percent of the reported volume of cumulated subject import sales (3.5 million short tons).[126] [127]

We have also considered other evidence on the record that speaks to the relative prices of domestic UAN and subject imports. Of the 33 responding purchasers, 14 reported that, since 2019, they had purchased imported UAN from Russia and 13 reported that they had purchased UAN from Trinidad & Tobago instead of U.S.-produced product.[128] Five of these purchasers

[121] CR/PR at V-13. The two pricing products concern the same UAN product, the distinction is that they are sold through two different channels of distribution. **Product 1.--** Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32-percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers; and **Product 2.--** Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32-percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors. *Id*.

[122] CR/PR at V-14 and n.48.

[123] CR/PR at V-14 and nn.50 and 51.

[124] CR/PR at Table V-7.

[125] CR/PR at Table V-7.

[126] CR/PR at Table V-7.

[127] During 2019, cumulated subject imports undersold the domestic like product in *** of 36 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Derived from* CR/PR at Tables V-3 and V-4. During 2020, cumulated subject imports undersold the domestic like product in *** of 36 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Id*. During 2021, cumulated subject imports undersold the domestic like product in *** of 36 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Id*.

[128] CR/PR at V-27. Purchasers responding to the lost sales and revenue questions reported importing and/or purchasing *** short tons of subject imports during the POI. CR/PR at Table V-8.

reported that Russian import prices were lower than U.S.-produced UAN and three reported the prices of UAN from Trinidad & Tobago were lower than U.S.-produced UAN. Four of these purchasers reported that price was a primary reason for the decision to purchase Russian UAN rather than U.S.-produced product, and three of these purchasers reported that price was a primary reason for the decision to purchase UAN from Trinidad & Tobago rather than U.S.-produced product. These purchasers estimated that they purchased *** short tons of subject imports instead of domestic product due to price.[129] Other purchasers identified non-price reasons for purchasing subject imports instead of domestic UAN, such as lack of domestic product availability, regional unavailability, and logistics.[130]

Purchaser responses regarding comparability also do not suggest that subject imports were generally priced lower than the domestic product. When comparing domestic UAN to subject imports from both countries, most purchasers reported domestic UAN is comparable with respect to price.[131]

The pricing data show that subject imports largely oversold the domestic like product during the POI, in 63.9 percent of monthly comparisons covering 58.1 percent of the volume of subject imports, and purchaser responses do not otherwise suggest that subject imports were generally lower priced. In light of the evidence on the record, we find that subject import

[129] CR/PR at Table V-9. The volume of confirmed subject import purchases due to lower price equates to about *** percent of total cumulated subject import volume or about *** percent of total apparent U.S. consumption during the POI. *Derived from* CR/PR at Tables IV-2 and IV-8.

The record shows that domestic producers' share of reported purchases increased by *** percentage points over the POI, while subject import's share of reported purchases declined by *** percentage points. CR/PR at Table V-8. Petitioner argues that the volume of subject imports purchased primarily due to price, *** short tons, is significant because it is "equivalent to *** percent of the 838,150 short tons aggregate increase in cumulated subject imports during 2019 and 2020, as compared to 2018." Petitioner Posthearing Brief at 8-9. However, purchaser data were collected for the 2019-2021 POI, not merely 2019 and 2020. *See* CR/PR at V-25; U.S. Purchaser Questionnaire at II-1 and II-4. Thus, it is not possible to draw the implication Petitioner does that the volume of subject imports purchased due to price occurred primarily in 2019 and 2020. While we recognize that certain purchasers reported buying subject imports instead of the domestic product due to lower prices, this did not prevent the domestic industry from gaining market share during the POI. Additionally, we do not find that this evidence of lost sales outweighs the other evidence on the record showing that subject imports were not predominantly priced lower than the domestic product and that they did not have significant price depressing or suppressive effects on the domestic industry.

[130] CR/PR at V-27 and Table V-9.

[131] *See* CR/PR at Table II-11.

underselling was not significant.[132] We note that the domestic industry gained 2.2 percentage points of market share from subject imports over the period.[133] [134]

We have also considered price trends over the POI. Prices for both the domestic like product and subject imports declined from 2019 to 2020, before increasing sharply in 2021, with period highs near the end of the POI.[135] Domestic prices for Products 1 and 2 increased by *** and *** percent, respectively, between January 2019 and December 2021.[136] Similarly, prices for subject imports of Product 1 and 2 from Russia increased *** percent and ***

[132] Petitioner argues that the significance of subject import underselling should be assessed based upon the lowest sales price for each pricing product in each month, but limits its analysis to its own pricing data, rather than data for all domestic producers. Petitioner Posthearing Brief at 7-8. Yet, the pricing data on the record show that subject imports on average oversold the domestic like product in most monthly comparisons and with respect to most subject import sales volume. CR/PR at Tables V-3 and V-4. We find this pricing comparison more probative for our analysis of underselling across the entire market. In any case, using Petitioner's methodology, Helm conducted analysis of the pricing data, including data reported by all domestic producers, which indicates that the lowest priced sales were often made by domestic producers. *See* Helm Posthearing Brief, Annex IV at 7-9.

[133] CR/PR at Table IV-8. As measured using importers' U.S. shipments of imports, the domestic industry similarly gained 2.6 percentage points of market share from subject imports over the POI, including 3.6 percentage points from subject imports from 2019 to 2020. CR/PR at Table K-2.

[134] While subject imports increased their market share in 2021 by 0.1 percentage point (or 0.2 percentage points as measured using U.S. shipments of imports) at the expense of the domestic industry, this occurred as cumulated subject imports undersold the domestic like product in less than half (*** of 36) of monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *See* CR/PR at Tables V-3, V-4, C-1, and K-2.

[135] CR/PR at Tables V-3 and V-4, Fig. V-3-5. Petitioner argues that the Commission should accord reduced weight to data for full-year 2021 because after the filing of the petitions on June 30, 2021, "subject imports entered at prices significantly higher than at any other time during the POI, and this enabled U.S. prices to rise as well." Petitioner Prehearing Brief at 63. However, prices for subject imports and the domestic product began increasing in December 2020 and increased more on a dollar per short ton basis in the months before the petitions were filed than after the petitions were filed. *See* CR/PR at Tables V-3 to V-4, Fig. V-5. U.S. prices for product 1 increased by $*** per short ton from January to June 2021, and by $*** per short ton between June and November 2021. *Calculated from* CR/PR at Table V-3. U.S. prices for product 2 increased by $*** per short ton from January to June 2021, and by $*** per short ton from June to November 2021. *Calculated from* CR/PR at Table V-4. Given these substantial increases prior to the filing of the petitions, we decline to reduce the weight accorded to full year 2021 data.

Additionally, cumulated subject import volume from January-June 2021 was lower than in January-June 2020; subject import volume was then higher in July-November 2021 than in July-November 2020, before substantially exiting the market in December 2021 with Commerce's preliminary CVD determination. *See* CR/PR at D-6 and Table IV-7; Petitioner Posthearing Brief at 11 (***). Thus, while the domestic industry may have experienced some positive effects from the imposition of preliminary duties in December 2021, they were not significant and do not detract from the fact that imports were declining and prices rising significantly before the petition was filed.

[136] CR/PR at V-21 and Tables V-3 to V-5.

percent respectively, while prices for subject imports of Product 2 from Trinidad & Tobago increased *** percent over the POI.[137] Although the domestic industry's prices declined in 2019 and 2020, this occurred as subject imports primarily oversold the domestic like product and the volume of subject imports and market share declined. In 2021, subject imports maintained a significant presence in the market but the domestic industry was able to raise prices substantially, including prior to the petitions being filed.[138]

Petitioner argues that following the imposition of antidumping duties in the EU in 2019, UAN producers in the subject countries increased their exports to the United States in 2019 and 2020, which resulted in subject imports oversupplying the market which caused U.S. prices to decline in 2019, 2020, and first quarter of 2021.[139] Petitioner argues that much of the volume of subject imports in 2019 did not reach end-user customers due to flooding along the Mississippi River system and therefore accumulated in purchaser inventories.[140] We are unpersuaded by Petitioner's argument. The record does not show any significant buildup of subject import inventories during the 2019-2020 period, whether held by importers or by purchasers.[141] Importers' inventories of subject imports were at their highest level of the POI in the first quarter of 2019 and subsequently declined irregularly through the rest of 2019 and during 2020.[142] Importers had larger monthly volumes of subject imports in inventory in January to July 2019 than in the same months in January to July 2020.[143]

Purchasers' inventory data show annual fluctuations with the lowest levels in the second and third quarters of each year and the highest levels in the first quarter of each year, prior to the spring UAN application season.[144] Inventories held by responding purchasers in second-quarter 2019 were at their lowest point of the POI.[145] Purchasers reported lower inventories in fourth-quarter 2019 than in fourth-quarter 2020 which is inconsistent with Petitioner's assertions that substantial volumes of subject imports in 2019 were stored in inventory in the latter half of that year.[146] Purchasers also reported larger inventory volumes in

[137] CR/PR at V-21 and Tables V-3 to V-5.

[138] CR/PR at Tables IV-8, V-3, V-4, and K-1.

[139] *See* Petitioner Prehearing Brief at 36-38.

[140] Petitioner Prehearing Brief at 37 ("The large accumulation of subject imports at all levels of the U.S. distribution system had a significant depressing effect on U.S. UAN prices.").

[141] *See* CR/PR at II-3, Appendix D. The Commission collected data from U.S. producers, importers, and purchasers on their inventory volumes and capacities during the POI. Purchasers did not report the country sources for their UAN in inventory.

[142] *See* CR/PR at Table D-1.

[143] CR/PR at Table D-1.

[144] *See* CR/PR at Table D-8, Figure D-2.

[145] CR/PR at Table D-8.

[146] CR/PR at Table D-8.

the first quarters of 2019 and 2021 than in the first quarter of 2020, when Petitioner alleges that purchasers' inventories were filled with subject imports.[147] In sum, our data show that importers' and purchasers' inventories of subject merchandise were not elevated in advance of the 2020 summer fill campaign, as Petitioner has alleged, when compared to other years of the POI. Narrative responses on inventory levels provided in questionnaire responses from purchasers, importers, and domestic producers *** also do not indicate that inventories of subject imports caused oversupply in 2019 or 2020.[148]

Further, the relatively stable level of inventories maintained by purchasers and imports and price declines from 2019 to 2020 alleged by Petitioner to be caused by subject import oversupply coincided with a 17.6 percent decline in subject import volume, an *** percent decline in the quantity of subject import U.S. shipments, and a 3.5 percentage point decline in subject import market share, indicating that sales of subject imports did not increase the supply of UAN in the U.S. market from 2019 to 2020.[149] In contrast, the domestic industry increased U.S. shipment quantity by 7.0 percent and market share by 3.7 percentage points between 2019 and 2020.[150] At the same time, cumulated subject imports undersold the domestic like product in only *** of 36 monthly comparisons in 2020, with *** percent of subject import volume in 2020 in the months associated with underselling.[151]

Petitioner also argues that inventory data collected by the Commission is likely understated because, while it adequately covers UAN storage capacity at the wholesaler/distributor level, it does not fully capture UAN storage capacity at the retailer level where, it alleges, a large portion of U.S. inventory capacity is held.[152] Contrary to petitioner's assertions, the Commission has purchaser questionnaire coverage accounting for most U.S.

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[147] CR/PR at Table D-8.

[148] *See* CR/PR at Tables D-2, D-4, and D-9. Trade publications cited by Petitioner do not detract from our conclusion. *See* Petitioner Prehearing Brief at 39-41 and Exhibits 7-12. These publications refer to ***. *See id.* As discussed, extensive inventory data collected by the Commission do not support Petitioner's contention that there was an injurious overhang in inventories of subject imports during the POI.

[149] CR/PR at Tables C-1, K-1, and K-2. Subject import market share decreased by 3.6 percentage points between 2019 and 2020, when measured using U.S. importers' U.S. shipments. CR/PR at Table K-1 and K-2. The U.S. importers' end-of-period inventory storage capacity utilization was also relatively stable and did not exceed 50 percent during the POI (*** percent in 2019, *** percent in 2020, and *** percent in 2021). *See* CR/PR at Table D-6.

[150] CR/PR at Table C-1. The domestic industry market share increased by 3.6 percentage points between 2019 and 2020, when measured using U.S. importers' U.S. shipments. CR/PR at Table K-1 and K-2.

[151] *Derived from* CR/PR at Tables V-3 and V-4. The average margin of overselling by subject imports (*** percent) was larger than the average margin of underselling (*** percent) in 2020. *Id.*

[152] Petitioner Prehearing Brief at 15-16.

shipments of subject imports over the POI.[153] These responding purchasers include large purchasers of UAN and a substantial number of retailers.[154] In addition, importer questionnaire coverage of subject imports was fairly comprehensive.[155] We therefore find these data to provide a reliable indication of inventory levels and trends. The extensive inventory data collected show no build-up in inventories of subject imports.[156]

We also decline to use the inventory data preferred by Petitioner from the third-party industry publication Argus North American Fertilizer.[157] The article, based on estimates of domestic UAN production, imports, and consumption of UAN (based on corn acreage planted and average annual UAN use per acre), estimates that there were carryovers of UAN inventories leading into the 2019 and 2020 fertilizer seasons (beginning in July 2019 and 2020).[158] However, the estimate does not differentiate imports based on source and therefore does not separate nonsubject from subject imports, nor does it differentiate inventories of

[153] *See* CR/PR at IV-1 and Table V-8.

[154] *See* CR/PR at I-3-4; Helm Posthearing Brief, Annex II at 6-7. Helm emphasizes that *** purchasers accounted for *** percent of *** purchases in 2021, and these same purchasers accounted for *** percent of apparent U.S. consumption that year. Helm Posthearing Brief, Annex II at 6-7. The Commission received questionnaire responses from each of these purchasers. *See* CR/PR at Table V-8. Thus, even if a large number of purchasers remain unaccounted for in our questionnaire coverage, it is likely that they accounted for relatively small volumes of UAN purchases. While Petitioner emphasizes that our data are understated, it would be inappropriate for the Commission to speculate that additional questionnaire responses would change the trends we see in the record. *See* Petitioner Posthearing Brief, Answers to Questions at 21-22.

[155] *See* CR/PR at IV-1.

[156] *See* CR/PR at Appendix D. Petitioner also argues that the Commission should combine inventories for U.S. importers, U.S. producers, and U.S. purchasers to provide the most comprehensive picture available in the questionnaire data regarding the inventory overhang that presumably existed at the end of the 2019 and 2020 fertilizer years. According to Petitioner, the inventory data demonstrate that inventories at the end of the fertilizer year in 2019 and 2020 (*i.e.*, inventories at the end of Q2 of 2019 and 2020) were elevated compared to 2021 and combined to significantly depress the domestic industry's prices. *See, e.g.,* Petitioner Prehearing Brief at 4-5, 42-43. As explained above, the record shows that inventories of subject merchandise were not elevated in advance of the 2020 summer fill campaign (*i.e.*, Q2 2020) when compared to other years of the POI. The inclusion of the domestic industry's inventories for this period does not alter our conclusion, based on our analysis of the purchasers' and importers' inventories, that inventories were not elevated in 2020 compared to other years of the POI. *See* CR/PR at Tables D-1 and D-8, and Figure D-2. Moreover, including domestic producer data in a cumulative inventory volume does little to help the Commission assess material injury by reason of subject imports. We also note that the lower cumulated inventory volume in Q2 2021 as compared to earlier years was largely driven by a decline in domestic producers' inventories, which was likely affected by the production disruptions reported in early 2021. *See* CR/PR at Tables III-3, D-1 and D-8.

[157] *See* Petitioner Prehearing Brief at 41-42 and Exhibit 14.

[158] Petitioner Posthearing Brief Responses to Questions at 23 and Exhibit 13.

domestic product from inventories of imports.[159] Consequently, this does not provide insight into whether there was an inventory build-up of subject imports. Moreover, the data underlying the Argus publications do not match either the publicly available monthly import data or the annual domestic production data collected by the Commission.[160] Thus, we find that the inventory data collected by the Commission are more reliable and probative for our analysis.

Based on the foregoing, we find that cumulated subject imports did not depress prices for the domestic like product to a significant degree.[161] [162]

We have also considered whether cumulated subject imports prevented price increases which otherwise would have occurred to a significant degree. The domestic industry's COGS to net sales ratio increased from *** percent in 2019 to *** percent in 2020 before declining to

[159] Petitioner Posthearing Brief at Exhibit 13.

[160] *See* Petitioner Posthearing Brief at Exhibit 13; CR/PR at Tables IV-7 and C-1.

[161] Petitioner argues that subject producers' consignment-like sales arrangements contribute to the depressing effect of subject imports because they incentivize importers of subject UAN to make sales at extremely low prices to maximize the volume of their sales. Petitioner Prehearing Brief at 43-44. We observe, however, that the pricing data on the record reflects the actual prices at which U.S. importers sold subject imports to unrelated customers in the U.S. market. Thus, we base our analysis of price effects on the pricing data, and not on Petitioner's assertions regarding commercial arrangements between foreign producers and U.S. importers. *See* CR/PR at V-10 to V-11.

Petitioner also claims that under normal market conditions, UAN should trade at a premium to urea on a nitrogen nutrient content basis because UAN is "a more agronomically valuable product that requires more capital expenditure to produce." Petitioner Prehearing Brief at 46-47. Instead, Petitioner argues that low-priced subject imports depressed prices for UAN such that UAN traded at a discount to urea for most of the pre-petition period. *Id.* We do not find differences in prices between UAN and urea instructive for our analysis of the price effects of subject imports of UAN. As Petitioner acknowledges, UAN and urea are different products that are subject to potential differences in market conditions that may affect price differences. Petitioner Posthearing Brief Responses to Questions at 36. Helm argues that UAN and urea are distinct products impacted by differences in global structures, end-uses, transportation limitations, and trading patterns that naturally create frequent and short-term pricing misalignments. Helm Posthearing Brief at 10. Indeed, although UAN is produced in part from urea, Petitioner's data show that ***. *See* Petitioner Prehearing Brief at 47. Urea comprises only a minority of UAN by weight, and urea is used for other purposes, including feed grade urea and diesel exhaust products, as well as other forms of fertilizer. CR/PR at I-15, III-10. Because urea is a different product sold into a different market, price trends for urea shed little light on whether subject imports are influencing prices for UAN. To the extent that there was a "prolonged inversion of the typical UAN price premium" in 2020, this potentially reflects lower UAN prices in 2020, but as discussed elsewhere we have not found that subject imports significantly depressed domestic prices for UAN.

[162] Out of 17 responding purchasers, only four purchasers of UAN from Russia and three of 15 purchasers of UAN from Trinidad & Tobago reported that domestic producers had reduced prices to compete with lower-priced subject imports. CR/PR at V-30. We note *** is a domestic producer of UAN and *** is the ***. *See* CR/PR at II-2, III-3 and Tables III-2 and V-12; U.S. Purchaser Questionnaire Response of *** at I-4.

*** percent in 2021, a level *** percentage points lower than in 2019.[163] The domestic industry's COGS-to-net-sales ratio increased from 2019 to 2020, as unit net sales value fell by $*** per short ton and unit total COGS fell by less, $*** per short ton.[164] This increase was accompanied by a 17.6 percent decline in subject import U.S. shipments, a 3.5 percentage point decline in subject import market share, and subject import overselling in 80.6 percent of monthly comparisons in 2020. As discussed above, we do not find that subject imports adversely affected domestic prices during the POI to a significant degree nor specifically in 2020. Further, from 2020 to 2021, the domestic industry increased net sales unit value by $*** per short ton as unit total COGS increased by $*** per short ton, resulting in the industry's COGS-to-net-sales ratio decreasing to *** percent in 2021, the lowest of the POI, even as subject imports gained market share.[165] We find that subject imports did not prevent price increases that otherwise would have occurred to a significant degree.[166]

In sum, we find that cumulated subject imports did not have significant price effects on the domestic like product.

3. Impact of the Cumulated Subject Imports[167]

Many measures of the domestic industry's performance fluctuated but generally improved over the full POI. The industry gained market share during the POI, and the

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

[164] CR/PR at Table VI-1. This decline in unit total COGS was driven largely by declining unit raw material costs, which declined from $*** per short ton in 2019 to $*** per short ton in 2020. *Id.*

[165] CR/PR at Tables VI-1, C-1, and K-1.

[166] We are unpersuaded by Petitioner's argument that its contemporaneous documentation demonstrates that subject imports had significant adverse price effects. *See* Petitioner Prehearing Brief at Exhibit 3 and attachments; Petitioner Posthearing Brief Exhibits 14-27. These documents provided limited examples of price negotiations where offered subject import prices appear lower than offered domestic prices; rather, much of the documentation consists of speculation as to the pricing and supplier of certain sales Petitioner did not win and references to market prices without mentioning subject imports. *See, e.g.,* Petitioner Prehearing Brief, Exhibit 3 at Attachments E and H; Petitioner Posthearing Brief at Exhibits 15, 17, 20, 21, 23, 25, 27. To the extent that some of these contemporaneous documents show that Petitioner lost certain sales to subject imports due to a lower price, this evidence does not outweigh other information on the record showing that cumulated subject imports predominantly oversold the domestic like product; did not cause the domestic industry to lose market share over the POI; did not significantly depress prices for the domestic like product, with domestic prices for both pricing products increasing over the POI; and did not significantly suppress domestic prices, with the domestic industry's COGS to net sales ratio declining irregularly during the period.

[167] 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.

substantial increase in domestic prices in 2021 resulted in a significant increase in the industry's net sales value and a dramatic strengthening of its financial performance in 2021 to the highest levels of the POI.[168]

The domestic industry's output indicators generally fluctuated throughout the POI. The domestic industry's capacity increased from 15.9 million short tons in 2019 to 16.1 million short tons in 2020 and 2021, for an overall increase of 1.1 percent.[169] Production decreased overall by 2.6 percent from 2019 to 2021, increasing from 12.7 million short tons in 2019 to 13.0 million short tons in 2020, before decreasing to 12.4 million short tons in 2021.[170] Capacity utilization also declined overall by 2.9 percentage points from 2019 to 2021, increasing from 80.0 percent in 2019 to 80.8 percent in 2020, before declining to 77.1 percent in 2021.[171]

The domestic industry's total U.S. shipments fluctuated over the POI but ended the period where they began, increasing from 11.6 million short tons in 2019 to 12.4 million short tons in 2020 before declining to 11.6 million short tons in 2021.[172] End-of-period inventories increased *** percent overall from 2019 to 2021, and were *** short tons in 2019, *** short tons in 2020, and *** short tons in 2021.[173] The domestic industry's share of apparent U.S. consumption, by quantity, increased by 2.2 percentage points overall from 2019 and 2021,

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§ 1677(7)(C)(iii)(V). In its final determination of sales at less than fair value on subject imports from Russia, Commerce found antidumping duty margins ranging from 8.16 to 122.93 percent for subject imports from Russia and an antidumping duty margin of 111.71 percent for subject imports from Trinidad & Tobago. *See Final AD Determination/Russia*, 87 Fed. Reg. at 37832; *Final AD Determination/Trinidad & Tobago,* 87 Fed. Reg. at 37825. We take into account in our analysis the fact that Commerce has made final findings that all subject merchandise from Russia and Trinidad & Tobago is dumped. In addition to this consideration, we find our analysis of the price effects of subject imports, based upon the pricing data and other record evidence, particularly instructive for our impact analysis.

[168] Petitioner argues that the "bulk of the improvement in the domestic industry's profitability occurred during the post-petition period in the second half" of 2021. Petitioner Prehearing Brief at 58. However, as discussed above, U.S. prices for UAN began increasing at the end of 2020, well before the filing of the petition. Additionally, the volume of cumulated subject imports during January-June 2021, prior to the filing of the petitions, was 1.1 million short tons, less than the 1.2 million short tons of subject imports during January-June 2020. CR/PR at Table IV-7. The petitions were filed on June 30, 2021, and cumulated subject import volume was subsequently higher during July-November 2021 (941,962 short tons) than during July-November 2020 (819,461 short tons), before largely exiting the market in December 2021 when Commerce published its preliminary CVD determination. CR/PR at Tables I-1 and IV-7. Accordingly, we do not find that improvements in the domestic industry are due to the pendency of these investigations and we decline to accord reduced weight to full-year 2021 data.

[169] CR/PR at Tables III-4 and C-1.

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

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

[172] CR/PR at Tables III-9 and C-1.

[173] CR/PR at Tables III-12 and C-1.

increasing from 78.6 percent in 2019 to 82.3 percent in 2020, before decreasing to 80.8 percent in 2021.[174]

Most of the domestic industry's employment-related indicators were stable or improving over the POI. Employment rose by 1.8 percent from 2019 to 2021, from 1,447 production-related workers ("PRWs") in 2019 to 1,461 PRWs in 2020 and 1,473 PRWs in 2021.[175] Total hours worked was steady at 3.1 million from 2019 to 2021.[176] Wages paid rose steadily over the POI from $173.1 million in 2019 to $184.3 million in 2020 to $191.8 million in 2021.[177] Hourly wages (dollars per hour) increased steadily from $55.99 in 2019 to $59.78 in 2020 and $61.38 in 2021.[178] Productivity, measured in short tons per 1,000 hours, declined overall over the POI; it was 4,124 in 2019, 4,211 in 2020, and 3,974 in 2021. Unit labor costs, measured in dollars per short ton, increased throughout the POI; they were $13.57 in 2019, $14.20 in 2020, and $15.45 in 2021.[179]

The domestic industry's financial performance weakened from 2019 to 2020 before it strengthened markedly from 2020 to 2021 to the highest levels of the POI, as domestic prices increased sharply.[180] Total sales revenues declined from $*** in 2019 to $*** in 2020 before increasing to $*** in 2021.[181] Gross profits were $532.8 million in 2019, $213.1 million in 2020, and $1.2 billion in 2021.[182] Operating income declined from $395.8 million in 2019 to $102.0 million in 2020 before increasing to $1.1 billion in 2021.[183] Operating income as a ratio to total net sales declined from *** percent in 2019 to *** percent in 2020 before increasing to *** percent in 2021.[184] Net income declined from $225.4 million in 2019 to negative $34.7 million in 2020 before increasing to $977.6 million in 2021.[185]

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[174] CR/PR at Tables IV-8 and C-1. The domestic industry's market share over the POI based on U.S. shipments of imports followed a similar pattern; it was 79.6 percent in 2019, 83.1 percent in 2020, and 82.1 percent in 2021. CR/PR at Table K-1.

[175] CR/PR at Tables III-17 and C-1.

[176] CR/PR at Table III-17. Hours worked per PRW declined overall over the POI, and were 2,136 hours in 2019, 2,110 hours in 2020, and 2,121 hours in 2021. *Id.*

[177] CR/PR at Table III-17.

[178] CR/PR at Table III-17.

[179] CR/PR at Table III-17.

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

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

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

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

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

[185] CR/PR at Table VI-1. Net income as a ratio to total net sales was *** percent in 2019, *** percent in 2020, and *** percent in 2021. *Id*.

The domestic industry's capital expenditures increased overall from 2019 to 2021, decreasing from $206.3 million in 2019 to $153.0 million in 2020, before increasing to $239.6 million in 2021. [186] The domestic industry's total net assets decreased from 2019 to 2021, from $8.0 billion in 2019 to $7.5 billion in 2020 and $6.9 billion in 2021.[187]

The record does not indicate that cumulated subject imports had a significant impact on the domestic industry. We have found that cumulated subject imports, though significant in terms of absolute volume and market share, did not cause the domestic industry to lose market share over the POI, did not significantly undersell the domestic like product, and did not cause significant price depression or suppression.[188] To the contrary, the domestic industry captured market share from cumulated subject imports over the POI and increased its prices significantly over the period as subject imports predominantly oversold the domestic like product. When the domestic industry's performance declined from 2019 to 2020 to the lowest levels of the POI, subject import volume and market share also declined to the lowest levels of the period, and the record does not establish that inventories of subject imports were elevated or caused declining U.S. prices.[189] As domestic prices increased sharply from 2020 to 2021, and subject

[186] CR/PR at Table VI-4. Notably, Petitioner, which accounts for *** of the reported capital expenditures by the domestic industry, also reported that it *** rather than as a result of subject imports. *Id.* at III-5 and Table VI-4. Additionally, research and development expenditures declined steadily from 2019 to 2021; they were $*** in 2019, $*** in 2020, and $*** in 2021. *Id.* at VI-6. The majority of the domestic producers, however, reported that R&D expenses were *** to their production of UAN or that it was ***. CR/PR at Table VI-7.

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

[188] Petitioner argues that "the Commission's COMPAS model" shows that the domestic industry's sales quantities, revenues, profits, and market share would have been higher but for the presence of subject imports during the POI. *See* Petitioner Prehearing Brief at 65-66 and Exhibit 4. We do not find the COMPAS model to be a useful tool in our analysis. COMPAS modeling was one analytic tool that appeared in Commission staff reports during the 1990s and early 2000s. The results of the COMPAS model were never used by the Commission as its sole form of analysis in a Commission opinion because of its limitations. As the Commission explained shortly after it stopped providing the COMPAS model in its reports, we prefer to rely on the actual empirical data in the record. *See, e.g.*, *Circular Seamless Stainless Steel Hollow Products from Japan*, Inv. No. 731-TA-859 (Remand), USITC Pub. 3475 at 7 and n.24 (Dec. 2001); *accord Altx, Inc. v. United States*, 370 F.3d 1108, 1121 (Fed. Cir. 2004). Theoretical economic models, "based on a set of assumptions, may be outweighed by real world data." *Maine Potato Council v. United States*, 613 F. Supp. 1237, 1244 n.8 (Ct. Int'l Trade 1985).

[189] Respondents argue that EU order was the cause of the oversupply in the domestic market as it caused CF Industries to redirect UAN shipments back to the U.S. market and reduce their production. *See* Gavilon Prehearing Brief at 37-40 and Exhibits 3 and 5; Acron/IRM Prehearing Brief, Exhibit 1 at 32-33.

import volumes remained relatively flat, the domestic industry's financial performance increased dramatically to the highest level of the POI.[190] [191]

For the foregoing reasons, we find that cumulated subject imports did not have a significant impact on the domestic industry. Accordingly, we find that an industry in the United States is not materially injured by reason of subject imports from Russia.

B. No threat of Material Injury by Reason of Cumulated Subject Imports

1. Cumulation for Threat

Under section 771(7)(H) of the Tariff Act, the Commission may "to the extent practicable" cumulatively assess the volume and price effects of subject imports from all countries as to which petitions were filed on the same day if the requirements for cumulation in the material injury context are satisfied.[192] Petitioner argues that the Commission should exercise its discretion to cumulate subject imports from Russia and Trinidad & Tobago for purposes of its threat analysis, while EuroChem argues that the Commission should consider subject imports from Russia separately.[193]

As discussed in section IV.B above, we have found that there is a reasonable overlap of competition between and among subject imports from Russia and Trinidad & Tobago, and the domestic like product. There is no information or argument on the record indicating that the reasonable overlap we have found will change in the imminent future.

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[190] Petitioner argues that the domestic industry's poor performance in the first quarter of 2021, based on data collected in the preliminary phase of the investigations, demonstrates material injury by reason of subject imports. *See* Petitioner Prehearing Brief at 5 and Posthearing Brief at 10. The record shows, however, that the domestic industry's poor performance in the first quarter of 2021 coincided with natural gas supply disruptions. Natural gas production declined and spot prices approached record highs in the first quarter of 2021, as colder-than-normal weather caused freeze-offs during a period of high demand for heating and power. CR/PR at V-1 and n.2. Indeed, domestic UAN producer ***. CR/PR at V-2 n.7. Moreover, as discussed above, subject imports neither depressed nor suppressed domestic prices during the POI, and the domestic industry's financial performance improved from 2020 to 2021 to the highest levels of the period.

[191] We are mindful that we 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. 19 U.S.C. § 1977(7)(J). As explained above, our determination is based on the record as a whole, which does not show that subject imports caused significant price effects or had a significant impact on the domestic industry.

[192] 19 U.S.C. § 1677(7)(H).

[193] Petitioner Posthearing Brief, Answers to Questions at 102-104; EuroChem Prehearing Brief at 2-4.

We also find no differences in the likely conditions of competition pertaining to subject imports from Russia and Trinidad & Tobago that would warrant the consideration of subject imports from either country separately for purposes of our threat analysis. Although subject imports from Russia and Trinidad & Tobago exhibited different volume trends from 2019 to 2020, both declined over the full POI,[194] and the volume of subject imports from both sources remained significant throughout the period.[195] Moreover, the pricing data indicates that subject imports from Russia and Trinidad & Tobago generally followed the same price trends over the POI.[196] For these reasons, we exercise our discretion to cumulate subject imports from Russia and Trinidad & Tobago for purposes of our threat analysis regarding subject imports from Russia.

2. Likely Volume of the Cumulated Subject Imports

In section VII.A.1 above, we found the volume of cumulated subject imports to be significant during the POI, both absolutely and relative to consumption in the United States. However, subject import volume, U.S. shipments of subject imports, and subject import market share declined over the POI.[197] There is no information on the record indicating that these trends are likely to change in the imminent future, or that substantially increased subject import volumes are likely absent relief.

The record indicates that subject producers are unlikely to substantially increase their exports to the United States in the imminent future. Reported capacity and production of the cumulated subject industries were down from 2019 to 2021, and are projected to decrease in 2022 and 2023.[198] The subject industries had high capacity utilization rates throughout the POI, ranging from *** percent to *** percent, and possessed excess capacity of *** short tons in 2021, equivalent to *** percent of apparent U.S. consumption that year.[199] Further, although

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

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

[196] *See* CR/PR at V-20, Tables V-3 and V-4, Figures V-3 and V-4.

[197] The volume of cumulated subject imports declined from 2.6 million short tons in 2019 to 2.2 million short tons in 2020, and 2.1 million short tons in 2021. CR/PR at Table IV-8.

[198] CR/PR at Table VII-9. Reported capacity of the cumulated subject industries decreased overall during the POI, from *** short tons in 2019 to *** short tons in 2020, before increasing to *** short tons in 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. *Id.* The reported production of UAN by the cumulated subject industries declined overall from 2019 to 2021, from *** short tons in 2019 to *** short tons in 2020, before increasing to *** short tons in 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. *Id.*

[199] *Derived from* CR/PR at Tables IV-8 and VII-9. Unused capacity of the cumulated subject industries was *** short tons in 2019, *** short tons in 2020 and *** short tons in 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. *Derived from id.* at Table VII-9.

producers in the subject countries maintained some volume of excess capacity throughout the POI, this did not result in increased shipments to the United States as the cumulated subject import volume declined by 21.3 percent from 2019 to 2021.[200] Further, while capacity utilization is projected to increase somewhat in 2022 and 2023, this is projected to occur as production decreases.[201]

Additionally, although UAN producers in the subject countries are export-oriented and exported a substantial share of their total shipments to the United States during the POI, the share of their total shipments exported to the United States declined over the period as the share shipped to home and third country markets increased, and their export orientation did not result in an increase in subject import volume during the POI.[202] It is noteworthy that the subject producers' declining focus on the U.S. market during the POI, and their declining exports to the United States, occurred despite the antidumping measures imposed by the EU on UAN from Russia and Trinidad & Tobago in 2019.[203]

Inventories held by subject producers and U.S. importers do not indicate that a significant increase in subject imports is likely. The end-of-period inventories held by UAN producers in the subject countries increased over the POI but remained low relative to their production.[204] U.S. importers' inventories of subject imports were fairly flat over the POI, and increased little as a share of importers' U.S. shipments of subject imports.[205] Responding

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

[201] The reported capacity utilization rate of the cumulated subject industries increased from *** percent in 2019 to *** percent in 2020, before declining to *** percent in 2021. It is projected to be *** percent in 2022 and *** percent in 2023. CR/PR at Table VII-9.

[202] Total export shipments accounted for *** percent of total shipments by subject producers in 2019, *** percent in 2020, and *** percent in 2021; they are projected to account for *** percent in 2022 and *** percent in 2023. CR/PR at Table VII-9. Export shipments to the United States accounted for *** percent of total shipments by subject producers in 2019, *** percent in 2020, and *** percent in 2021; they are projected to account for *** percent in 2022 and *** percent in 2023. *Id*. Exports to all other markets accounted for *** percent of total shipments by subject producers in 2019, *** percent in 2020, and *** percent in 2021; they are projected to account for *** percent in 2022 and *** percent in 2023. *Id.*

[203] *See* CR/PR at Tables VII-9 and G-4.

[204] End-of-period inventories by subject producers decreased from *** short tons in 2019 to *** short tons in 2020, before increasing to *** short tons in 2021. They are projected to be *** short tons in 2022 and *** short tons in 2023. CR/PR at Table VII-9. Subject producers had inventories equivalent to *** percent of their production in 2019, *** percent in 2020, and *** percent in 2021. Their projected inventories are estimated to be *** percent of projected production in 2022 and *** percent in 2023. *Id*.

[205] U.S. importers' inventories of cumulated subject merchandise decreased from *** short tons in 2019 to *** short tons in 2020, before increasing to *** short tons in 2021. CR/PR at Table VII-10.

importers reported *** arranged imports of UAN from Russia and Trinidad & Tobago, limited to *** short tons in the first quarter of 2022.[206] Finally, the subject industries reported ***.[207]

Based on the foregoing evidence, we find that cumulated subject import volume is not likely to increase substantially in the imminent future.[208]

3. Likely Price Effects of the Cumulated Subject Imports

In section VII.A.2 above, we found that cumulated subject import underselling was not significant, and that the cumulated subject imports did not cause the domestic industry to lose market share over the POI. We found that cumulated subject imports neither depressed nor suppressed prices for the domestic like product during the POI.

The record does not indicate that subject import underselling is likely to intensify. Indeed, the record shows the highest concentration of underselling by subject imports in 2019, the first year of the POI.[209] Nor is there any evidence of a likely imminent change in conditions of competition that would result in cumulated subject imports having significant price

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The ratio of U.S. importers' inventories of subject merchandise to U.S. shipments of subject imports was *** percent in 2019 and 2020, and *** percent in 2021. *Id*.

[206] CR/PR at Table VII-11. Petitioner provided some evidence that there was a vessel *** from Russia destined for the U.S. in June 2022, however there is nothing to suggest that this shipment is a change from previous trends. Petitioner's Prehearing Brief at 3 and Appendix L.

[207] CR/PR at VII-7 (Russia) and VII-14 (Trinidad & Tobago).

[208] In our analysis, we have considered the nature of the subsidies Commerce has found to be countervailable, particularly whether the subsidies are ones described in Articles 3 or 6.1 of the WTO Agreement on Subsidies and Countervailing Measures, and whether imports of the subject merchandise are likely to increase. 19 U.S.C. § 1677(7)(F)(i)(I). We observe that in its final countervailing duty determination concerning UAN from Russia, Commerce found the following subsidy programs to be countervailable: Provision of Natural Gas for Less Than Adequate Renumeration; State financing for Industrial Export Projects; Novgorod Region Tax Incentives to Investors; Tula Region's Support of Industrial Development; Stavropol Krai's Region's Support of Industrial Development; Preferential Debt Financing of Projects Aimed at Introducing the Best Available Technologies; and Railway Tariff Partial Compensation. *Urea Ammonium Nitrate Solutions from the Russian Federation: Final Affirmative Countervailing Duty Determination*, 87 Fed. Reg. 37836, 37837 (June 24, 2022), and accompanying *Issues and Decision Memorandum* (June 24, 2022), at 10-11. In its final countervailing duty determination concerning UAN from Trinidad & Tobago, Commerce found the following subsidy programs to be countervailable: Import Duty Exemptions and Provision of Natural Gas for Less Than Adequate Renumeration (LTAR). *Urea Ammonium Nitrate Solutions from the Republic of Trinidad and Tobago: Final Affirmative Countervailing Duty Determination*, 87 Fed. Reg. 37828 (June 24, 2022). We have taken these subsidy findings into account in our analysis of likely subject import volume. As discussed in the text, however, the fact that the subject industries may cumulatively have some ability or incentive to increase exports to the United States does not make substantially increased subject imports likely in light of the pertinent conditions of competition and other factors discussed.

[209] *See* CR/PR at Tables V-3 and V-4.

depressing or suppressing effects on domestic industry prices. We consequently find that cumulated subject imports are not likely to enter at prices that would be likely to have significant depressing or suppressing effects on domestic prices, or that would be likely to increase demand for further subject imports in the imminent future.

4. Likely Impact of the Cumulated Subject Imports

In section VII.A.3 above, we found that the domestic industry's performance improved by many measures and the industry gained market share over the POI. As discussed above, the domestic industry added capacity, added workers, and raised prices during the POI, and its gross profits and operating income both exceeded $1 billion in 2021.[210] Given the domestic industry's strong financial performance in 2021, we do not find that the industry is vulnerable to material injury from cumulated subject imports.

We have found that cumulated subject import volumes are not likely to increase substantially in the imminent future and that subject imports are not likely to have significant price effects. We also find that cumulated subject imports are not likely to have an actual or potential negative effect on the domestic industry's existing development and production efforts, given the 16.1 percent increase in the industry's capital expenditures between 2019 and 2021 and our finding that cumulated subject imports are unlikely to substantially increase or have significant adverse price effects.[211] Given this, we find that cumulated subject imports will not likely have a significant impact on the domestic industry in the imminent future.

For all the foregoing reasons, we conclude that an industry in the United States is not threatened with material injury by reason of subject imports from Russia.

[210] *See* CR/PR at Table C-1.

[211] Capital expenditures decreased from $206.3 million in 2019 to $153.0 million in 2020, before increasing to $239.6 million in 2021. CR/PR at Table VI-4. We acknowledge that a number of producers reported that subject imports caused negative effects on investment or growth and development during the POI and anticipated that the subject imports would continue to have negative effects. *See* CR/PR at Tables VI-9 and VI-10. Nevertheless, we cannot accord these perceptions controlling weight in light of other data in the record indicating that cumulated subject imports from Russia and Trinidad & Tobago did not have a significant adverse 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.

VIII. Determinations on Subject Imports from Trinidad & Tobago

A. No Material Injury by Reason of Subject Imports from Trinidad & Tobago

1. Volume of Subject Imports from Trinidad & Tobago

The volume of subject imports from Trinidad & Tobago fluctuated over the POI,[212] but was 2.3 percent lower in 2021 than in 2019. Specifically, subject import volume increased from 942,579 short tons in 2019 to 996,137 short tons in 2020, before declining to 920,601 short tons in 2021.[213]

The market share of subject imports from Trinidad & Tobago remained relatively flat over the POI. The share of apparent U.S. consumption held by subject imports from Trinidad & Tobago increased from 6.4 percent in 2019 to 6.6 percent in 2020, before declining to 6.4 percent in 2021.[214] [215]

We find that the volume of subject imports from Trinidad & Tobago was significant both in absolute terms and relative to U.S. consumption. For the reasons discussed below, however, we do not find that subject imports from Trinidad & Tobago had either significant price effects or a significant impact on the domestic industry.

2. Price Effects of Subject Imports from Trinidad & Tobago

As addressed in section VI.C above, the record indicates there is a moderate-to-high degree of substitutability between subject imports from Trinidad & Tobago and the domestic like product, and that price is an important factor in purchasing decisions, among other important factors.[216] Although the Commission collected monthly f.o.b. pricing data on sales of two UAN products shipped to unrelated U.S. retailers and unrelated wholesalers/distributors during the POI, all reported sales of subject imports from Trinidad & Tobago were of Product 2, which accounted for *** percent of U.S. shipments of subject imports from Trinidad & Tobago

[212] As with the cumulated subject imports, subject imports from Trinidad & Tobago were higher in 2019 than in 2018. *See* CR/PR at Table H-1 (increasing from 769,643 short tons in 2018 to 942,579 short tons in 2019).

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

[214] CR/PR at Table IV-8. Measured using U.S. shipments of imports, subject imports' from Trinidad & Tobago market share was *** percent in 2019, *** percent in 2020, and *** percent in 2021. CR/PR at Table K-1.

[215] The volume of subject imports from Trinidad & Tobago relative to U.S. production increased from 7.4 percent in 2019 to 7.7 percent in 2020 before decreasing back to 7.4 percent in 2021. CR/PR at Table IV-2.

[216] CR/PR at II-22 to II-24 and Tables II-7 and II-8.

in 2021.[217] The pricing data reported by responding domestic producers accounted for approximately *** percent of U.S. producers' U.S. shipments of UAN.[218]

The pricing data show that subject imports from Trinidad & Tobago undersold the domestic like product in 15 of 36 monthly comparisons, or 41.7 percent of the time, at margins ranging between *** to *** percent and averaging *** percent.[219] Subject imports from Trinidad & Tobago oversold the domestic like product in the remaining 21 of 36 monthly comparisons, or 58.3 percent of the time, at margins ranging between *** and *** percent and averaging *** percent. Months in which subject imports undersold the domestic product accounted for *** percent of the reported sales volume of subject imports from Trinidad & Tobago (*** short tons), and months in which subject imports oversold the domestic product accounted for *** percent of the reported sales volume of subject imports from Trinidad & Tobago (*** short tons).[220] Thus, subject imports from Trinidad & Tobago primarily oversold the domestic product both in terms of monthly comparisons and on a volume basis.[221]

We have also considered other evidence on the record that speaks to the relative prices of domestic UAN and subject imports. Thirteen of 31 responding purchasers reported purchasing subject imports from Trinidad & Tobago instead of the domestic like product, and three of the 13 reported that subject import prices were lower than prices for the domestic like product.[222] Although all three purchasers reported purchasing subject imports from Trinidad & Tobago due to their low price, the quantity of these purchases was only *** short tons.[223] Other purchasers identified non-price reasons for purchasing subject imports instead of

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[217] CR/PR at V-13 to V-14 and Table V-4. **Product 1.--** Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32-percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers; and **Product 2.--** Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32-percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors. *Id*.

[218] CR/PR at V-14.

[219] CR/PR at Table V-7.

[220] CR/PR at Table V-7.

[221] During 2019, subject imports from Trinidad & Tobago undersold the domestic like product in *** of 12 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Derived from* CR/PR at Table V-4. During 2020, subject imports from Trinidad & Tobago undersold the domestic like product in *** of 12 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Id.* During 2021, subject imports from Trinidad & Tobago undersold the domestic like product in *** of 12 monthly comparisons, with *** percent of subject import volume in the months associated with underselling. *Id.*

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

[223] CR/PR at Tables V-10 and V-11. These lost sales were equivalent to *** percent of the volume of subject imports present in the market and *** percent of total apparent U.S. consumption over the POI. *Derived from* CR/PR at Tables IV-8 and V-11.

domestic UAN, such as lack of domestic product availability, regional unavailability, and logistics.[224]

Purchaser responses regarding comparability also do not suggest that subject imports were generally priced lower than the domestic product. When comparing domestic UAN to subject imports from Trinidad & Tobago, most purchasers reported domestic UAN is comparable to subject imports with respect to price.[225]

The pricing data show that subject imports oversold the domestic like product in a majority, 58.3 percent, of monthly comparisons covering *** percent of subject import volume, and purchaser responses do not otherwise suggest that subject imports were generally lower priced. We find that underselling by subject imports from Trinidad & Tobago was not significant during the POI. We note that the domestic industry did not lose market share to Trinidad & Tobago over the full POI, as Trinidad & Tobago's market share increased by 0.2 percentage points in 2020 before ending the POI at the same level as in 2019.[226]

We have also considered price trends over the POI. As discussed in section VII.A.2 above, sales prices for the pricing products declined from 2019 to 2020, before increasing sharply in 2021 to reach a period high.[227] Domestic prices for Products 1 and 2 increased by *** and *** percent, respectively, over the POI.[228] Similarly, prices for subject imports of Product 2 from Trinidad & Tobago increased *** percent over the POI.[229] The price declines that the domestic industry experienced in 2019 and 2020 occurred as subject imports from Trinidad & Tobago primarily oversold the domestic like product.[230] In light of the foregoing, we

[224] CR/PR at V-27 and Table V-9.

[225] See CR/PR at Table II-11

[226] CR/PR at Table IV-8. As measured using importers' U.S. shipments of imports, the market share of subject imports from Trinidad & Tobago did not significantly increase over the POI: it decreased from *** percent in 2019 to *** percent in 2020, before increasing to *** percent in 2021. CR/PR at Table K-1.

[227] CR/PR at Tables V-3 and V-4, Fig. 3.

[228] CR/PR at Table V-5.

[229] CR/PR at Table V-4 and V-5.

[230] *Derived from* CR/PR at Table V-4 (showing subject imports from Trinidad & Tobago oversold the domestic like product in 67 percent of instances comprising *** percent of subject import volume in 2019 and 58.3 percent of instances comprising *** percent of subject import volume in 2020).

find that subject imports from Trinidad & Tobago did not depress prices for the domestic like product to a significant degree.[231] [232]

Nor did subject imports from Trinidad & Tobago prevent price increases that otherwise would have occurred to a significant degree. As discussed in section VII.A.2 above, the domestic industry's COGS to net sales ratio declined irregularly over the POI to a level in 2021 that was *** percentage points lower than in 2019.[233] Although the industry's COGS to net sales ratio increased from 2019 to 2020, this increase was not driven by increasing costs but rather declining net sales AUVs, and as discussed above the record does not support that subject imports from Trinidad & Tobago caused prices to decline to a significant degree.[234]

In sum, we find that subject imports from Trinidad & Tobago did not have significant price effects on the domestic like product during the POI.

3. Impact of Subject Imports from Trinidad & Tobago[235]

As discussed in section VII.A.3 above, many measures of the domestic industry's performance, fluctuated but generally improved over the full POI. The industry gained market share over the POI, and the substantial increase in domestic prices from 2020 to 2021 resulted in a significant increase in the industry's net sales value and a dramatic strengthening of its financial performance in 2021 to the highest levels of the POI.[236]

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[231] Three responding purchasers reported that domestic producers reduced their prices to compete with low-priced subject imports from Trinidad & Tobago. CR/PR at Table V-13. *** estimated that domestic producers had reduced prices *** percent to compete with subject imports from Russia and Trinidad & Tobago, and U.S. purchasers *** and *** reported that domestic producers had to reduce prices *** and *** percent, respectively, to compete with subject imports from Trinidad & Tobago. CR/PR at V-12. As noted above, U.S. purchasers *** and *** are affiliated with the domestic industry.

[232] As discussed above in section VII.A.2, we do not find that overhanging inventories of subject imports caused U.S. prices to decline to a significant degree.

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

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

[235] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination of sales at less than fair value on subject imports from Trinidad & Tobago, Commerce found antidumping duty margin of 111.71 percent for subject imports from Trinidad & Tobago. *See Urea Ammonium Nitrate Solutions from the Republic of Trinidad and Tobago: Final Affirmative Determination of Sales at Less Than Fair Value*, 87 Fed. Reg. 37824, 37825 (June 24, 2022). We take into account in our analysis the fact that Commerce has made final findings that all subject merchandise from Trinidad & Tobago is dumped. In addition to this consideration, we find our analysis of the price effects of subject imports, based upon the pricing data and other record evidence, particularly instructive for our impact analysis.

[236] As discussed above, we do not reduce the weight accorded to full-year 2021 data.

The domestic industry's output indicators generally fluctuated throughout the POI. The domestic industry's capacity increased from 15.9 million short tons in 2019 to 16.1 million short tons in 2020 and 2021, for an overall increase of 1.1 percent.[237] Production decreased overall by 2.6 percent from 2019 to 2021, increasing from 12.7 million short tons in 2019 to 13.0 million short tons in 2019, before decreasing to 12.4 million short tons in 2021.[238] Capacity utilization also declined overall by 2.9 percentage points from 2019 to 2021, increasing from 80.0 percent in 2019 to 80.8 percent in 2020, before declining to 77.1 percent in 2021.[239]

The domestic industry's total U.S. shipments fluctuated over the POI but ended the period where they began, increasing from 11.6 million short tons in 2019 to 12.4 million short tons in 2020 before declining to 11.6 million short tons in 2021.[240] End-of-period inventories increased *** percent overall from 2019 to 2021, and were *** short tons in 2019, *** short tons in 2020, and *** million short tons in 2021.[241] The domestic industry's share of apparent U.S. consumption, by quantity, increased by 2.2 percentage points overall from 2019 to 2021, increasing from 78.6 percent in 2019 to 82.3 percent in 2020, before decreasing to 80.8 percent in 2021.[242]

Most of the domestic industry's employment-related indicators were stable or improving over the POI. Employment rose by 1.8 percent from 2019 to 2021, from 1,447 PRWs in 2019 to 1,461 PRWs in 2020 and 1,473 PRWs in 2021.[243] Total hours worked was steady at 3.1 million from 2019 to 2021.[244] Wages paid rose steadily over the POI from $173.1 million in 2019 to $184.3 million in 2020 to $191.8 million in 2021.[245] Hourly wages (dollars per hour) increased steadily from $55.99 in 2019 to $59.78 in 2020 and $61.387 in 2021.[246] Productivity, measured in short tons per 1,000 hours, declined overall over the POI; it was 4,124 in 2019, 4,211 in 2020, and 3,974 in 2021. Unit labor costs, measured in dollars per short ton, increased throughout the POI; they were $13.57 in 2019, $14.20 in 2020, and $15.45 in 2021.[247]

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

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

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

[240] CR/PR at Tables III-9 and C-1.

[241] CR/PR at Tables III-12 and C-1.

[242] CR/PR at Tables IV-8 and C-1. The domestic industry's market share over the POI based on U.S. shipments of imports followed a similar pattern; it was 79.6 percent in 2012, 83.1 percent in 2020, and 82.1 percent in 2021. CR/PR at Table K-1.

[243] CR/PR at Tables III-17 and C-1.

[244] CR/PR at Table III-17. Hours worked per PRW declined overall over the POI, and were 2,136 hours in 2019, 2,110 hours in 2020, and 2,121 hours in 2021. *Id.*

[245] CR/PR at Table III-17.

[246] CR/PR at Table III-17.

[247] CR/PR at Table III-17.

The domestic industry's financial performance weakened from 2019 to 2020 before strengthening markedly from 2020 to 2021 to the highest levels of the POI, as domestic prices increased sharply.[248] Total sales revenues declined from $*** in 2019 to $*** in 2020 before increasing to $*** in 2021.[249] Gross profits declined from $532.8 million in 2019 to $213.1 million in 2020, before increasing significantly to $1.2 billion in 2021.[250] Operating income declined from $395.8 million in 2019 to $102.0 million in 2020, before increasing significantly to $1.1 billion in 2021.[251] Operating income as a ratio to total net sales declined from *** percent in 2019 to *** percent in 2020, before increasing significantly to *** percent in 2021.[252] Net income declined from $225.4 million in 2019 to negative $34.7 million in 2020, before increasing significantly to $977.6 million in 2021.[253] Net income as a ratio to total net sales declined from *** percent in 2019 to *** percent in 2020, before increasing significantly to *** percent in 2021.[254]

The domestic industry's capital expenditures increased irregularly from 2019 to 2021, decreasing from $206.3 million in 2019 to $153.0 million in 2020, before increasing to $239.6 million in 2021.[255] The domestic industry's total net assets decreased from 2019 to 2021, from $8.0 billion in 2019 to $7.5 billion in 2020 and $6.9 billion in 2021.[256]

The record does not indicate that subject imports from Trinidad & Tobago had a significant impact on the domestic industry during the POI. We have found that subject imports from Trinidad & Tobago, though significant in terms of absolute volume and market share, did not cause the domestic industry to lose market share over the POI, did not significantly undersell the domestic like product, nor did they depress or suppress prices to a significant degree. To the contrary, the domestic industry increased its prices significantly over the period as subject imports from Trinidad & Tobago declined irregularly and oversold the domestic like product in a majority of monthly comparisons. As a consequence, the domestic industry's profitability increased dramatically in 2021 to the highest levels of the POI.[257]

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

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

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

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

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

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

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

[255] CR/PR at Table VI-4. Research and development expenditures declined steadily from 2019 to 2021; they were $*** in 2019, $*** in 2020, and $*** in 2021. CR/PR at Table VI-6.

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

[257] We are mindful that we 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. 19 U.S.C. § 1977(7)(J).

In view of the foregoing, we find that subject imports from Trinidad & Tobago did not have a significant impact on the domestic industry. We accordingly find that an industry in the United States is not materially injured by reason of subject imports from Trinidad & Tobago.

B. No Threat of Material Injury by Reason of Subject Imports from Trinidad & Tobago

1. Cumulation for Threat

As discussed in section IV.B above, under the statutory exception to cumulation for CBERA beneficiary countries,[258] we consider subject imports from Trinidad & Tobago separately for purposes of our threat analysis of those imports.

2. Likely Volume of Subject Imports

In section VIII.A.1 above, we found the volume of subject imports from Trinidad & Tobago to be significant during the POI, both absolutely and relative to consumption in the United States. However, subject imports from Trinidad & Tobago declined by 2.3 percent in terms of volume over the POI, and their market share in 2021 was the same as in 2019, at 6.4 percent.[259] There is no information on the record indicating that substantially increased subject import volumes are likely absent relief.

The record indicates that the subject industry in Trinidad & Tobago is unlikely to substantially increase its exports to the United States in the imminent future. Reported capacity and production of the industry in Trinidad & Tobago increased modestly during the POI, and are projected to increase by a small amount in 2022 and 2023.[260] Capacity increased slightly more than production resulting in a small decline in capacity utilization over the POI.[261] However, the subject industry had *** capacity utilization rates throughout the POI, ranging from *** percent to *** percent, and its excess capacity in 2021, *** short tons, was

[258] 19 U.S.C. § 1677(7)(G)(ii)(III).

[259] The volume of subject imports from Trinidad & Tobago increased from 942,579 short tons in 2019 to 996,137 short tons in 2020, before declining to 920,601 short tons in 2021. CR/PR at Table IV-8.

[260] CR/PR at Table VII-7. Reported capacity increased modestly overall during the POI, from *** short tons in 2019 to *** short tons in 2020 and 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. *Id*. The reported production of UAN fluctuated from 2019 to 2021, increasing from *** short tons in 2019 to *** short tons in 2020 and 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. *Id*.

[261] *See* CR/PR at Table VII-7. The reported capacity utilization rate of the subject industry in Trinidad & Tobago decreased from *** percent in 2019 to *** percent in 2020, and *** percent in 2021. It is projected to be *** percent in 2022 and *** percent in 2023. *Id.*

equivalent to only *** percent of apparent U.S. consumption that year.[262] Further, the limited excess capacity possessed by the subject industry during the POI did not result in a significant increase in subject imports from Trinidad & Tobago from 2019 to 2021.[263]

In addition, subject imports from Trinidad & Tobago declined irregularly during the POI notwithstanding the export orientation of the subject industry in Trinidad & Tobago and its focus on the U.S. market.[264] It is noteworthy that exports by the subject industry to the United States declined irregularly during the POI despite the EU's imposition of antidumping duties on UAN from Trinidad & Tobago in 2019.[265]

Inventories of subject merchandise held by the subject industry remained low as a share of production throughout the POI, and inventories held by U.S. importers declined irregularly during the period.[266] Responding importers reported *** arranged imports of UAN from

[262] Unused capacity of the industry in Trinidad & Tobago was *** short tons in 2019, *** short tons in 2020 and *** short tons in 2021. It is projected to be *** short tons in 2022 and *** short tons in 2023. Derived from CR/PR at Table VII-7.

[263] *See* CR/PR at Table IV-2.

[264] Subject imports from Trinidad & Tobago were 942,579 short tons in 2019, 996,137 short tons in 2020 and 920,601 short tons in 2021. CR/PR at Table C-1. Total export shipments accounted for *** percent of total shipments by the subject producer from 2019 to 2021. They are projected to account for *** percent in 2022 and 2023. CR/PR at Table VII-7. Export shipments to the United States accounted for *** percent of total shipments by the subject producer in 2019, *** percent in 2020, and *** percent in 2021. They are projected to account for *** percent in 2022 and *** percent in 2023. *Id*. Export to all other markets accounted for *** percent of total shipments by the subject producer in 2019, *** percent in 2020, and *** percent in 2021. They are projected to account for *** percent in 2022 and *** percent in 2023. *Id.*

[265] *See* CR/PR at Table VII-7. Helm reported that its affiliate HFC, the sole importer of UAN from Trinidad & Tobago, had a business strategy of selling UAN principally to a limited number of long-term U.S. customers. These three customers accounted for around *** of HFC's total sales in all three years of the POI (increasing from *** percent in 2019 to *** percent in 2020 and *** percent in 2021). Helm Posthearing Brief at 14 and Table. As noted above, the volume of subject imports from Trinidad & Tobago was fairly consistent throughout the POI, which is consistent with Helm's assertion that HFC's strategy is primarily to supply a limited number of long-term customers.

[266] End-of-period inventories reported by the subject producer increased from *** short tons in 2019 to *** short tons in 2020, before decreasing to *** short tons in 2021. They are projected to be *** short tons in 2022 and *** short tons in 2023. CR/PR at Table VII-7. The subject producer had inventories equivalent to *** percent of production in 2019, *** percent in 2020, and *** percent in 2021. Its projected inventories are equivalent to *** percent of projected production in 2022 and *** percent in 2023. *Id*.

U.S. importers' inventories of subject UAN from Trinidad & Tobago increased from *** short tons in 2019 to *** short tons in 2020, before decreasing to *** short tons in 2021. CR/PR at Table VII-10. The ratio of U.S. importers' inventories of subject UAN from Trinidad & Tobago to U.S. shipments of subject imports was *** percent in 2019, *** percent in 2020, and *** percent in 2021. *Id*.

Trinidad & Tobago, limited to *** short tons in the first quarter of 2022.[267] Moreover, the subject industry ***.[268]

For all the foregoing reasons, we find that subject import volume from Trinidad & Tobago is not likely to increase significantly in the imminent future.[269]

3. Likely Price Effects of Subject Imports

In section VIII.A.2 above, we found that underselling by subject imports from Trinidad & Tobago was not significant. We also found that subject imports from Trinidad & Tobago neither depressed nor suppressed prices for the domestic like product during the POI.

The record does not indicate that underselling by subject imports from Trinidad & Tobago is likely to intensify. As explained above, the UAN producer in Trinidad & Tobago has been operating at *** capacity utilization and is projecting to operating at *** capacity utilization in the future and had relatively low inventory levels.[270] Thus, there is no apparent incentive for Trinidad & Tobago to aggressively price its UAN to try to increase exports to the United States. Nor is there any evidence of a likely imminent change in conditions of competition that would result in subject imports from Trinidad & Tobago having significant price depressing or suppressing effects on domestic prices. We consequently find that subject imports from Trinidad & Tobago are not likely to enter at prices that would be likely to have significant depressing or suppressing effects on domestic prices, or that would be likely to increase demand for further subject imports in the imminent future.

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[267] *See* CR/PR at Table VII-11.

[268] CR/PR at II-11, VII-14, and Table II-4.

[269] In our analysis, we have considered the nature of the subsidies Commerce has found to be countervailable, particularly whether the subsidies are one described in Articles 3 or 6.1 of the WTO Agreement on Subsidies and Countervailing Measures, and whether imports of the subject merchandise are likely to increase. 19 U.S.C. § 1677(7)(F)(i)(I). As we observed above, in its final countervailing duty determination concerning UAN from Trinidad & Tobago, Commerce found the following subsidy programs to be countervailable: Import Duty Exemptions and Provision of Natural Gas for Less Than Adequate Renumeration (LTAR). *Urea Ammonium Nitrate Solutions from the Republic of Trinidad and Tobago: Final Affirmative Countervailing Duty Determination*, 87 Fed. Reg. 37828 (June 24, 2022). We have taken these subsidy findings into account in our analysis of likely subject import volume. As discussed in the text, however, the fact that the subject industry in Trinidad & Tobago may have the ability or incentive to increase exports to the United States does not make substantially increased subject imports likely in light of the pertinent conditions of competition and other factors discussed.

[270] CR/PR at Table VII-7. The record also shows that the Trinidad & Tobago producer projects increased shipments of UAN to non-U.S. markets over its 2019-2021 volumes in both 2022 and 2023. *Id.*

4. Likely Impact of Subject Imports

As discussed in section VIII.A.3 above, we have found that the domestic industry's performance improved over the POI by many measures, and that subject imports from Trinidad & Tobago did not prevent the domestic industry from improving its financial performance in 2021 to the highest levels of the POI. Given the domestic industry's strong financial performance in 2021, we do not find that the industry is vulnerable to material injury from subject imports from Trinidad & Tobago.

We have found that the volume of subject impots from Trinidad & Tobago is not likely to increase significantly in the imminent future and that subject imports are not likely to have significant price effects. We also find that subject imports from Trinidad & Tobago are not likely to have an actual or potential negative effect on the domestic industry's existing development and production efforts, given the 16.1 percent increase in the domestic industry's capital expenditures between 2019 and 2021 and our finding that subject imports are unlikely to increase or have adverse price effects.[271] Given this, we find that subject imports from Trinidad & Tobago are not likely to have a significant impact on the domestic industry in the imminent future.

For all the foregoing reasons, we conclude that an industry in the United States is not threatened with material injury by reason of subject imports from Trinidad & Tobago.

IX. 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 cumulated subject imports of UAN from Russia and Trinidad & Tobago or by subject imports from Trinidad & Tobago found by Commerce to be sold in the United States at less than fair value and subsidized by the governments of Russia or Trinidad & Tobago.

[271] Capital expenditures decreased from $206.3 million in 2019 to $153.0 million in 2020, before increasing to $239.6 million in 2021. We acknowledge that a number of producers reported that subject imports caused negative effects on investment or growth and development during the POI and anticipated that the subject imports would continue to have negative effects. *See* CR/PR at Tables VI-9 and VI-10. Nevertheless, we cannot accord these perceptions controlling weight in light of other data in the record indicating that subject imports from Trinidad & Tobago did not have a significant adverse 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.

Part I: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by CF Industries Nitrogen, LLC and its subsidiaries, Terra Nitrogen, Limited Partnership and Terra International (Oklahoma) LLC, all of Deerfield, Illinois, on June 30, 2021, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of urea ammonium nitrate solutions ("UAN")[1] from Russia and Trinidad and Tobago. Table I-1 presents information relating to the background of these investigations.[2] [3]

Table I-1
UAN: Information relating to the background and schedule of this proceeding

Effective date	Action
June 30, 2021	Petitions filed with Commerce and the Commission; institution of the Commission's investigations (86 FR 36158, July 8, 2021)
July 20, 2021	Commerce's notices of initiation (86 FR 40004 and 86 FR 40008, July 26, 2021)
August 16, 2021	Commission's preliminary determinations (86 FR 46881, August 20, 2021)
December 3, 2021	Commerce's preliminary CVD determinations (86 FR 68635 and 68640, December 3, 2021)
February 2, 2022	Commerce's preliminary AD determinations (87 FR 5783 and 5785, February 2, 2022); scheduling of final phase of Commission investigations (87 FR 10241, February 23, 2022)
March 8, 2022	Commerce's amended preliminary AD determination (87 FR 12935, March 8, 2022)
June 16, 2022	Commission's hearing
June 24, 2022	Commerce's final determinations (87 FR 37824, 37828, 37831, and 37836)
July 18, 2022	Commission's vote
August 4, 2022	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] Appendix B presents the witnesses that appeared at 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, subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

Market summary

UAN is used almost exclusively as an agricultural fertilizer. The leading U.S. producers of UAN are CF Industries Nitrogen, LLC ("CF Industries"); ***, while leading producers of UAN outside the United States include EuroChem (on behalf of (a) Nevinnomyssky Azot, JSC; (b) Azot, JSC (Novomoskovsk)) ("EuroChem") and Public Joint Stock Company Acron (PJSC Acron) ("Acron") of Russia and Methanol Holdings (Trinidad) Limited ("MHTL") of Trinidad and Tobago. The leading U.S. importers of UAN from Russia are ***, while the leading importer of UAN from Trinidad and Tobago is Helm Fertilizer Corp. ("Helm Fertilizer"). Leading importers of product from nonsubject countries (primarily Canada) include ***. UAN purchasers are mainly

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

distributors or retailers. Large purchasers of UAN include ***.

Apparent U.S. consumption of UAN totaled approximately 14.4 million short tons gross weight ($3.7 billion) in 2021. Currently, eight firms are known to produce UAN in the United States. U.S. producers' U.S. shipments of UAN totaled 11.6 million short tons gross weight ($3.0 billion) in 2021 and accounted for 80.8 percent of apparent U.S. consumption by quantity and 80.6 percent by value. U.S. imports from subject sources totaled approximately 2.1 million short tons gross weight ($539.9 million) in 2021 and accounted for 14.5 percent of apparent U.S. consumption by quantity and 14.4 percent by value. U.S. imports from nonsubject sources totaled approximately 668.5 thousand short tons gross weight ($184.9 million) in 2021 and accounted for 4.7 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 these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of eight firms that are believed to account for virtually all U.S. production of UAN during 2021. U.S. imports are based on official Commerce import statistics under HTS statistical reporting number 3102.80.0000.

Previous and related investigations

Belarus, Lithuania, Russia, and Ukraine AD investigations

On April 19, 2002, the Nitrogen Solutions Fair Trade Committee[6] filed petitions with Commerce and the Commission alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV imports of UAN from Belarus, Lithuania, Russia, and Ukraine. The Commission determined on the basis of its preliminary phase record that U.S. imports of UAN from Lithuania were negligible.[7] On February 20, 2003, Commerce signed a suspension agreement concerning UAN from Russia.[8] On that same day, the petitioners requested a continuation of the investigations, and both Commerce and the

[6] Nitrogen Solutions Fair Trade Committee was an ad hoc coalition of U.S. UAN producers, consisting of CF Industries, Inc., Long Grove, Illinois; Mississippi Chemical Corp., Yazoo City, Mississippi; and Terra Industries, Inc., Sioux City, Iowa.

[7] 67 FR 39439, June 7, 2002.

[8] 68 FR 18673, April 16, 2003.

Commission resumed their investigations with respect to Russia. Commerce determined that UAN from Belarus, Russia, and Ukraine was being sold, or was likely to be sold, in the United States at LTFV.[9] The Commission subsequently determined that an industry in the United States was not materially injured or threatened with material injury, and the establishment of an industry in the United States was not materially retarded, by reason of imports of UAN from Belarus, Russia, and Ukraine.[10] [11]

Investigations related to upstream and alternative fertilizer products

In addition to the investigations concerning UAN from Belarus, Lithuania, Russia, and Ukraine, the Commission has conducted several investigations related to urea and ammonium nitrate, products that are both upstream in the production of UAN and are themselves fertilizer products. The Commission has also completed investigations related to other fertilizer products (ammonium sulfate and phosphate fertilizers). Details about those investigations are discussed below.

Urea from the German Democratic Republic, Romania, and the USSR

On July 16, 1986, an ad hoc committee of domestic nitrogen producers[12] filed a petition with Commerce and the Commission alleging that an industry in the United States was materially injured by reason of dumped imports of solid urea from the German Democratic Republic ("East Germany"), Romania, and the Union of Soviet Socialist Republics ("USSR").[13] The Commission made its final affirmative injury determinations in July 1987,[14] and Commerce issued antidumping duty orders on July 14, 1987.[15]

In December 1991, the USSR divided into 15 independent countries. To conform to these changes, Commerce changed the original USSR antidumping duty order into 15 orders

[9] 68 FR 9055, February 27, 2003; 68 FR 9977, March 3, 2003; and 68 FR 9057, February 27, 2003.

[10] 68 FR 18673, April 16, 2003.

[11] Following the Commission's negative determinations, Commerce published a notice of the termination of the suspension agreement and investigation with respect to Russia (68 FR 22681, April 29, 2003).

[12] The ad hoc committee was comprised of the following firms: Agrico Chemical Co., Tulsa, Oklahoma; American Cyanamid Co., Wayne, New Jersey; CF Industries, Long Grove, Illinois; First Mississippi Corp., Jackson, Mississippi; Mississippi Chemical Corp., Yazoo City, Mississippi; Terra International, Inc., Sioux City, Iowa; and W.R. Grace & Co., New York City, New York.

[13] 52 FR 19549, May 26, 1987.

[14] 52 FR 25640, July 8, 1987.

[15] 52 FR 26366, 26367, July 14, 1987.

applicable to each independent country. Commerce revoked the order concerning the former East Germany in 1998,[16] and, during the first five-year reviews in 1999, revoked the orders concerning Armenia;[17] Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, and Moldova;[18] and Latvia.[19] During the second five-year reviews, Commerce revoked the orders concerning Belarus, Estonia, Lithuania, Romania, Tajikistan, Turkmenistan, and Uzbekistan due to lack of domestic industry participation.[20] On January 5, 2006, Commerce published a notice of the continuation of the antidumping duty orders concerning Russia and Ukraine following full five-year reviews by the Commission.[21] Following affirmative determinations in the third five-year reviews, Commerce again published a continuation of the orders concerning Russia and Ukraine in December 2011.[22] During the fourth five-year reviews in 2016, Commerce revoked the remaining orders concerning Russia and Ukraine due to lack of domestic industry participation.[23] U.S. natural gas feedstock costs, the major feedstock component for urea, had become competitive with Russian and Ukrainian gas due to U.S. shale gas technology.

Ammonium nitrate from Russia

On July 23, 1999, the Committee for Fair Ammonium Nitrate Trade ("COFANT")[24] filed a petition with Commerce and the Commission alleging that an industry in the United States was materially injured by reason of LTFV imports of ammonium nitrate from Russia. In May 2000, Commerce entered into a suspension agreement with Russia and suspended the investigation,[25] but in June 2000, the petitioners requested a continuation of the investigations.

[16] 63 FR 16471, April 3, 1998.
[17] 64 FR 62654, November 17, 1999.
[18] 64 FR 24137, May 5, 1999.
[19] 64 FR 28974, May 28, 1999.
[20] 69 FR 77993, December 29, 2004.
[21] 71 FR 581, January 5, 2006.
[22] 76 FR 78885, December 20, 2011.
[23] 81 FR 96434, December 30, 2016.
[24] COFANT was an ad hoc committee comprised of the following member companies: Air Products & Chemicals, Inc., Allentown, Pennsylvania; Mississippi Chemical Corp., Yazoo City, Mississippi; El Dorado Chemical Co., Oklahoma City, Oklahoma; Nitram, Inc., Tampa, Florida; LaRoche Industries, Inc., Atlanta, Georgia; and Wil-Gro Fertilizer, Inc., Celina, Texas.
[25] 65 FR 37759, June 16, 2000. The basis for that action was an agreement between Commerce and Russia's Ministry of Trade accounting for substantially all imports of ammonium nitrate from Russia, wherein the Ministry agreed to restrict exports of ammonium nitrate from all Russian producers/exporters to the United States and to ensure that such exports are sold at or above the agreed reference price.

Commerce made a final affirmative dumping determination in July 2000,[26] and the Commission made its final affirmative injury determination in August 2000.[27] Commerce did not issue an antidumping duty order due to the suspension agreement in effect. In April 2006, Commerce issued a continuation of the suspended antidumping duty investigation[28] following affirmative determinations from Commerce and the Commission in the first five-year reviews.[29]

In February 2011, Commerce received a letter from the Russian Federation notifying Commerce of its withdrawal from the suspension agreement. Effective May 2, 2011, Commerce terminated the suspension agreement and imposed an antidumping duty order on solid fertilizer grade ammonium nitrate from Russia.[30] Following affirmative determinations from Commerce and the Commission in the second five-year reviews,[31] Commerce issued a continuation of the antidumping duty order in August 2011.[32] As a result of the third five-year review, Commerce revoked the order due to a lack of domestic industry participation in August 2016.[33] U.S. natural gas feedstock costs, also the major feedstock component for ammonium nitrate, had become competitive with Russian gas due to U.S. shale gas technology.

Ammonium nitrate from Ukraine

On October 13, 2000, COFANT[34] also filed a petition with Commerce and the Commission alleging that an industry in the United States was materially injured and threatened with material injury by reason of dumped imports of ammonium nitrate from Ukraine. Commerce made its final affirmative dumping determination in July 2001,[35] and the Commission made its final affirmative injury determination in August 2001.[36] Commerce issued an antidumping duty order concerning ammonium nitrate from Ukraine on September 12, 2001.[37] Effective July 9, 2007, Commerce issued a continuation of order[38] following a first full

[26] 65 FR 42669, July 11, 2000.
[27] 65 FR 50719, August 21, 2000.
[28] 71 FR 17080, April 5, 2006
[29] 70 FR 41426, July 19, 2005 and 71 FR 11177, March 6, 2006.
[30] 76 FR 23569, April 27, 2011.
[31] 76 FR 39847, July 7, 2011 and 76 FR 46323, August 4, 2011.
[32] 76 FR 49449, August 10, 2011.
[33] 81 FR 53433, August 12, 2016.
[34] COFANT was an ad hoc committee comprised of the same member companies that filed the ammonium nitrate from Russia petition (except for Wil-Gro Fertilizer, Inc., which had ceased production of ammonium nitrate in December 1999).
[35] 66 FR 38632, July 25, 2001.
[36] 66 FR 46466, September 5, 2001.
[37] 66 FR 47451, September 12, 2001.

five-year review by the Commission.[39] During the second five-year review, Commerce revoked the order due to lack of domestic industry participation.[40] U.S. natural gas feedstock costs, the major feedstock item for ammonium nitrate had become competitive with Ukrainian gas due to U.S. shale gas technology.

Ammonium sulfate from China

On May 25, 2016, Pasadena Commodities International (PCI) Nitrogen LLC, Pasadena, Texas, filed petitions with Commerce and the Commission alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV and subsidized imports of ammonium sulfate from China. Ammonium sulfate is similar to other types of nitrogen fertilizer, such as urea, ammonium nitrate, and UAN. Commerce made its final affirmative determinations in January 2017,[41] and the Commission made its final affirmative determinations in March 2017.[42] Commerce issued the antidumping and countervailing duty orders on ammonium sulfate from China in March 2017.[43]

Phosphate fertilizers from Morocco and Russia

On June 26, 2020, Mosaic Company, Plymouth, Minnesota, filed petitions with the Commission and Commerce alleging that an industry in the United States was materially injured and threatened with material injury by reason of subsidized imports of phosphate fertilizers from Morocco and Russia. Commerce made its final affirmative determinations in February 2021,[44] and the Commission made its final affirmative determinations in March 2021.[45] Commerce issued the countervailing duty orders on phosphate fertilizers from Morocco and Russia in April 2021.[46]

(…continued)

[38] 72 FR 37195, July 9, 2007.
[39] 72 FR 35260, June 27, 2007.
[40] 83 FR 28202, June 18, 2018.
[41] 82 FR 8403, January 25, 2017.
[42] 82 FR 12842, March 7, 2017.
[43] 82 FR 13094, March 9, 2017.
[44] 86 FR 9479 and 86 FR 9482, February 16, 2021.
[45] 86 FR 17642, April 5, 2021.
[46] 86 FR 18037, April 7, 2021.

Nature and extent of subsidies and sales at LTFV

Subsidies

On June 24, 2022, Commerce published notices in the Federal Register of its final affirmative determinations of countervailable subsidies for producers and exporters of UAN from Russia[47] and Trinidad and Tobago.[48] Tables I-2 and I-3 present Commerce's findings of subsidization of UAN in Russia and Trinidad and Tobago, respectively.

Table I-2
UAN: Commerce's final subsidy determination with respect to imports from Russia

Entity	Final countervailable subsidy rate (percent)
EuroChem Companies	6.27
Public Joint Stock Company Acron	9.66
All others	8.47

Source: 87 FR 37836, June 24, 2022.

Note: Commerce determined that the following companies are cross-owned with Joint Stock Company Nevinnomyssky Azot (Nevinka): Mineral and Chemical Company EuroChem, Joint Stock Company (MCC EuroChem); and Azot, Joint Stock Company (NAK Azot). Commerce also determined that the following companies are cross-owned with Public Joint Stock Company Acron: Joint Stock Company Acron Group; and Acron Switzerland AG. For further information on programs determined to be countervailable, see Commerce's associated Issues and Decision Memorandum.

Table I-3
UAN: Commerce's final subsidy determination with respect to imports from Trinidad and Tobago

Entity	Final countervailable subsidy rate (percent)
Methanol Holdings (Trinidad) Limited	1.83
All others	1.83

Source: 87 FR 37828, June 24, 2022.

Note: For further information on programs determined to be countervailable, see Commerce's associated Issues and Decision Memorandum.

[47] 87 FR 37836, June 24, 2022.
[48] 87 FR 37828, June 24, 2022.

Sales at LTFV

On June 24, 2022, Commerce published notices in the Federal Register of its final affirmative determinations of sales at LTFV with respect to imports from Russia[49] and Trinidad and Tobago.[50] Tables I-4 and I-5 present Commerce's dumping margins with respect to imports of product from Russia and Trinidad and Tobago, respectively.

Table I-4
UAN: Commerce's final weighted-average LTFV margins with respect to imports from Russia

Exporter/producer	Final dumping margin (percent)
Public Joint Stock Company Acron	8.16
Azot, Joint Stock Company/Joint Stock Company "Nevinnomyssky Azot"/Mineral and Chemical Company EuroChem, Joint Stock Company/EuroChem Trading Rus, Limited Liability Company	23.98
PJSC Kuibyshev Azot	122.93
SBU Azot	122.93
All others	14.91

Source: 87 FR 37831, June 24, 2022.

Table I-5
UAN: Commerce's final weighted-average LTFV margins with respect to imports from Trinidad and Tobago

Exporter/producer	Final dumping margin (percent)
Methanol Holdings (Trinidad) Ltd	111.71
All others	111.71

Source: 87 FR 37824, June 24, 2022.

[49] 87 FR 37831, June 24, 2022.
[50] 87 FR 37824, June 24, 2022.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[51]

> *The merchandise covered by this investigation is all mixtures of urea and ammonium nitrate in aqueous or ammonia solution, regardless of nitrogen concentration by weight, and regardless of the presence of additives, such as corrosion inhibiters and soluble micro or macronutrients (UAN).*
>
> *Subject merchandise includes merchandise matching the above description that has been processed in a third country, including by commingling, diluting, adding or removing additives, or performing any other processing that would not otherwise remove the merchandise from the scope of the investigations if performed in the subject country.*
>
> *The scope also includes UAN that is commingled with UAN from sources not subject to this investigation. Only the subject component of such commingled products is covered by the scope of this investigation.*

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations are provided for in the following provision of the Harmonized Tariff Schedule of the United States ("HTS"): 3102.80.00, mixtures of urea and ammonium nitrate in aqueous or ammoniacal solution. The column 1 and column 2 duty rates for this HTS subheading are free.[52] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

[51] 87 FR 5783 and 5785, February 2, 2022.

[52] In addition to the general rate, U.S. imports of UAN produced in China classified under 3102.80.00 were included in the modified Section 301 action against China as of September 21, 2018 (List 3). Items on this list were subject to additional duties of 10 percent ad valorem as of September 24, 2018, with this additional duty increasing to 25 percent ad valorem as of January 1, 2019. 83 FR 47974, September 21, 2018. The column 2 duty rate is also free, meaning introduced legislation that would revoke the Russian Federation's MFN status would not, ceteris paribus, change the duty on UAN imported from Russian sources. Senate Resolution S.3717, 117th Congress, March 1, 2022; Senate Resolution S.3722, 117th Congress, March 1, 2022; House Resolution H.R.7014, 117th Congress, March 9, 2022.

The product

Description and applications

UAN is a directly applied liquid nitrogen fertilizer composed of two independent fertilizers: urea and ammonium nitrate.[53] The two fertilizers activate at different time scales, with ammonium nitrate rapidly making its nitrogen content available to crops while urea provides a slower release.[54] It is most commonly, but not exclusively, applied to row crops like corn.[55] Because UAN is a liquid preparation, it can more easily be mixed and applied with some other plant nutrients or other agricultural chemicals than solid nitrogen fertilizers.[56]

UAN is a relatively new fertilizer, only coming into widespread usage over the past two decades. It is favorable for some users because of its nitrogen content, ranging from 28 to 32 percent, and for its ease of handling.[57] While less nitrogen dense than alternative fertilizers, UAN is substantially less volatile, that is, more nitrogen remains within the soil available to crops.[58] UAN can be easily sprayed onto fields, included in irrigation systems, or applied with other farm implements.[59] The equipment used for applying liquid fertilizers like UAN is different than those used for solid fertilizers, limiting interchangeability between this and other nitrogen fertilizer products. It can also be combined with other agricultural chemicals, such as certain pesticides and other fertilizers, which are applied together in the aqueous phase.[60] UAN has become the most popular nitrogen fertilizer in the United States, overtaking liquid ammonia

[53] Petition, p. I-6; Conference transcript, pp. 22–23 (Bilby); Petitioner's postconference brief, p. 59.

[54] The timing of application or re-application throughout the season depends on the crop and region. Petition, pp. I-7 and I-10; Conference transcript, p. 37 (Szamosszegi).

[55] Conference transcript, p. 24 (Bilby).

[56] Mosaic, "Urea Ammonium Nitrate," https://www.cropnutrition.com/resource-library/urea-ammonium-nitrate (accessed July 16, 2021); CF Industries, "Urea Ammonium Nitrate (UAN)," https://www.cfindustries.com/products/uan (accessed July 16, 2021).

[57] The choice of UAN grade depends on the local climate in which it will be applied, with cooler regions sometime preferring lower concentrations of fertilizer to prevent salting out (i.e., crystallization) at low temperatures. Petition, p. I-9.

[58] Ammonia, in contrast, is a gas at room temperature, requiring it be injected in a liquified state about twenty centimeters below ground. Urea by itself also tends to volatilize in warmer climates. Successful Farming Staff, "How to Apply Springtime Anhydrous Ammonia," March 25, 2019, https://www.agriculture.com/crops/corn/how-to-apply-springtime-anhydrous-ammonia; Petition, p. I-8.

[59] Petition, pp. I-9 and I-10.

[60] Agrico, "Urea Ammonium Nitrate Solution," https://www.agricocanada.com/fertilizers/urea-ammonium-nitrate-solution/ (accessed July 16, 2021); Petition, p. I-8.

over a decade ago and seeing consistently higher use than urea, the most popular solid nitrogen fertilizer.[61]

Manufacturing processes

The production of UAN in most regions is presently dependent on the upstream natural gas feedstock that is used to synthesize the two nitrogen fertilizer components.[62] The process begins with the splitting of natural gas (CH_4) into hydrogen (H_2) and carbon dioxide (CO_2) through steam reforming and the water-gas shift reactions (figure I-1). About 275 kg of natural gas is required to produce the hydrogen to manufacture one ton of UAN.[63] The cost of natural gas is a substantial portion of the cost to manufacture UAN, estimated by the petitioner to account for one third of production costs.[64] The United States, Russia, and Trinidad and Tobago have unique advantages for natural gas availability and the resulting manufacturing of UAN. The United States benefits from the decade-long shale gas boom.[65] Trinidad and Tobago is the largest natural gas producer in the Caribbean, with substantial offshore reserves.[66] Russia is the world's second largest natural gas producer, following only the United States.[67]

Natural gas costs do not necessarily correlate with the market price of nitrogen fertilizers in the United States. The U.S. Energy Information Agency reports that U.S. natural gas

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[61] Petition, p. I-6.

[62] Petition, p. I-11; Conference transcript, p. 53 (Will). It is also possible to manufacture UAN without natural gas, instead using coal or electricity to generate the hydrogen. China is the only nation with substantial coal-based fertilizer capacity. While there are reported plans to add electrolysis capacity online in several nations (i.e., fertilizer manufacturing that doesn't rely on coal or natural gas), any such production remains negligible compared to natural gas. Scott, "Tension Arises as Clean Hydrogen Projects Spread," July 9, 2020, https://cen.acs.org/energy/Tension-arises-clean-hydrogen-projects/98/i27.

[63] Calculation based on UAN-32 composed of 45 percent ammonium nitrate and 35 percent urea by weight. Additional natural gas beyond this value is required to provide heat to the process. Conference transcript, p. 103 (Will).

[64] Petition, p. I-23. U.S. natural gas prices have substantially increased since the initiation of the investigation. U.S. Energy Information Administration, "Natural Gas Prices," https://www.eia.gov/dnav/ng/ng_pri_sum_dcu_nus_a.htm (accessed April 21, 2022); U.S. Energy Information Administration, "Natural Gas Weekly Update," April 13, 2022, https://www.eia.gov/naturalgas/weekly/.

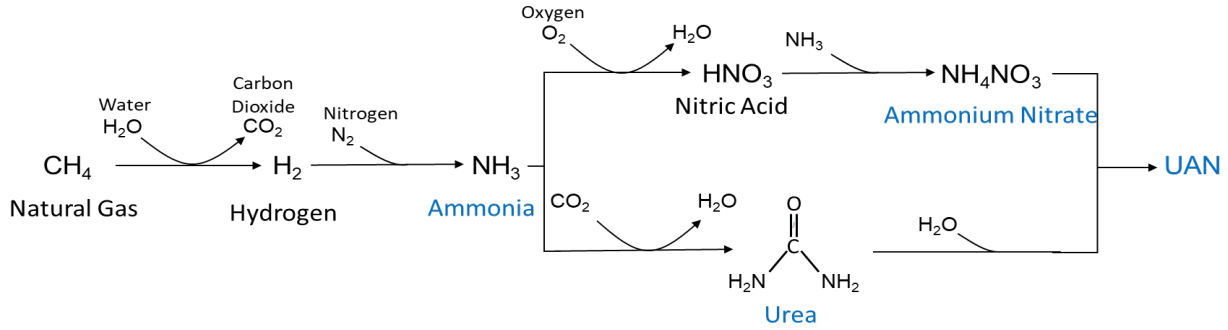
[65] Conference transcript, pp. 52 and 56 (Will); U.S. Energy Information Administration, "United States," https://www.eia.gov/international/overview/country/USA (accessed April 21, 2022).

[66] U.S. Energy Information Administration, "Trinidad and Tobago," January 2016, https://www.eia.gov/international/analysis/country/TTO.

[67] U.S. Energy Information Administration, "Russia," October 31, 2017, https://www.eia.gov/international/analysis/country/RUS.

prices have increased at a substantially lower rate than those in Europe (U.S. gas prices in late-March 2022 at $5.00/MMBtu being only about 14 percent of the $35.00/MMBtu cost as in Europe), yet the price of ammonia is similar in both markets.[68] [69] The fertilizer price parity is due to U.S. producers matching the global price set by producers in regions with higher natural gas costs and the overall level of global demand. This assessment is reported by the petitioner but disputed by a respondent.[70] The lower price of U.S. natural gas is reportedly aided by explicit and implicit subsidies on the order of hundreds of billions of dollars per year.[71]

Figure I-1
UAN: Chemical manufacturing pathway for UAN



Source: Goodman, "The Impact of EU Anti-dumping Duties on Urea Ammonium Nitrate Solution," October 2020, p. 3.

The hydrogen produced from natural gas is used to pull nitrogen from the air and form the fertilizer components. Hydrogen is reacted with atmospheric nitrogen (N_2) to yield ammonia (NH_3) through the Haber-Bosch process. Ammonia is both the starting point for further fertilizer production and a fertilizer in its own right, being the second most commonly used nitrogen fertilizer in the United States. Ammonium nitrate is produced in a two-step process from ammonia. The first involves the oxidation of ammonia to nitric acid (HNO_3) through the Ostwald process. While an important industrial chemical in its own right, nitric acid

[68] See figures V-1 and V-2 supra. Raghuveer and Wilczewski, "U.S. Ammonia Prices Rise in Response to Higher International Natural Gas Prices," May 10, 2022, https://www.eia.gov/todayinenergy/detail.php?id=52358.

[69] Commission staff data, Appendix Table L-4, indicate UK gas prices of $40.60/MMBtu average in March 2022 compared to $4.90/MMBtu, Henry Hub spot prices.

[70] Hearing Transcript, pp. 146–147 (Will), 148–152 (Will), and 212–213 (Emerson).

[71] Kotchen, "The Producer Benefits of Implicit Fossil Fuel Subsidies in the United States," *Proceedings of the National Academy of Sciences*, March 22, 2021, https://doi.org/10.1073/pnas.2011969118; Parry, Black, and Vernon, "Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies," *IMF Working Paper*¸ September 2021, https://www.imf.org/-/media/Files/Publications/WP/2021/English/wpiea2021236-print-pdf.ashx.

is not a nitrogen fertilizer. The addition of more ammonia completes an acid-base reaction to yield the ammonium nitrate salt (NH_4NO_3). Urea is synthesized in a parallel process that also starts with ammonia. Carbon dioxide is reacted with two equivalents of ammonia to yield urea. Both of these reactions are done in the liquid phase.

The final stage of UAN production involves mixing the two components in the desired ratio.[72] For example, UAN-32, which contains 32 percent nitrogen by weight, is a mixture of about 45 percent ammonium nitrate, 35 percent urea, and 20 percent water.[73] This can either be done by mixing water with urea and ammonium nitrate that was synthesized separately or by skipping the intermediate step of synthesizing distinct ammonium nitrate and urea.[74] CF Industries, for example, combines urea with nitric acid and ammonia to create UAN directly in a single process.[75] There are three primary configurations for producing UAN in a single process: (1) wholly dedicated production of urea and ammonium nitrate for UAN; (2) dedicated ammonium nitrate production supplemented with urea diverted from its primary manufacturing; and (3) dedicated urea supplemented with ammonium nitrate diverted from its primary manufacturing.[76] While many manufacturers are integrated producers of UAN, some purchase urea to mix with ammonium nitrate produced on-site.[77]

Because it is a liquid solution, UAN can be transported by rail, truck, ship, and barge to and from terminals, depending on the local distribution network's ability to handle it.[78] A

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[72] Petitioner's postconference brief, p. 58.

[73] Other common UAN grades include UAN-30 (42.2 percent ammonium nitrate, 32.7 percent urea, and 25.1 percent water) and UAN-28 (39.3 percent ammonium nitrate, 30.6 percent urea, and 30.2 percent water). UAN-32 is typically diluted to manufacture the other grades. Petition, pp. I-7 and I-11.

[74] Petition, p. I-11.

[75] CF Industries, "Urea Ammonium Nitrate (UAN)," https://www.cfindustries.com/products/uan (accessed July 16, 2021).

[76] The major difference between the three are what other primary products, if any, are or can be manufactured at the same site. Petition, pp. I-12–I-13. Some, but not all, domestic manufacturing sites are capable of manufacturing the constituent nitrogen fertilizers as distinct products. Conference transcript, pp. 55–56 (Will). The underlying chemical manufacturing process for UAN is functionally the same regardless of manufacturer. Respondent MHTL's postconference brief at Responses to ITC Staff Questions, pp. 1–2.

[77] The majority of UAN produced in the United States is produced in a continuous process. Gubler et al, "Ammonium Nitrate," October 1, 2019, p. 12, https://ihsmarkit.com/products/ammonium-nitrate-chemical-economics-handbook.html; Petition, p. I-11.

[78] The National Academies of Sciences, Engineering, and Medicine, "Reducing the Threat of Improvised Explosive Device Attacks by Restricting Access to Explosive Precursor Chemicals," 2018, pp. 171–172, https://www.nap.edu/catalog/24862/reducing-the-threat-of-improvised-explosive-device-
(continued...)

corrosion inhibitor is added during manufacturing to protect production equipment and subsequent transport vessels from attack by the nitrate component of the mixture, while the acidity (i.e., pH) is adjusted by adding a small amount of additional ammonia.[79] The ease of transporting UAN relative to its individual components has reportedly been a factor in its adoption.[80] Unlike ammonia, UAN can be stored at ambient pressures.[81]

UAN is manufactured year-round, but only used by farmers during specific parts of the planting season.[82] Most UAN is delivered and applied during a six-week window in spring to coincide with emergent crop growth, unlike other fertilizers that are applied throughout the growing season.[83] Outside of this time, manufacturers deliver most of their product into storage, predominantly held by wholesalers, where it accumulates until the following application season.[84] The overall availability of specialized transportation and storage capacity in the United States serves as a constraint on the amount of UAN that can be produced or delivered.[85]

Domestic like product issues

No issues with respect to domestic like product have been raised in these investigations. The petitioner argues that the factors that the Commission generally considers support defining a single domestic like product co-extensive with the scope of these investigations, covering all UAN solutions.[86] Respondent Gavilon Fertilizer stated that it does not challenge the domestic like product definition proposed by the petitioner – a single like product coextensive with Commerce's scope definition.[87] Similarly, respondents MHTL and Helm Fertilizer stated that

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(…continued)

attacks-by-restricting-access-to-explosive-precursor-chemicals; Petition, p. I-12 ; Conference transcript, pp. 37 (Szamosszegi) and 119–120 (Frost).

[79] Petition, pp. I-8 and I-11.

[80] One would not be able to apply the solid forms of urea and ammonium nitrate together as a mixture of the two solids would absorb too much water from the atmosphere. Petition, p. I-7.

[81] Petition, p. I-8.

[82] Conference transcript, p. 30 (O'Connell).

[83] Conference transcript, pp. 24–25 (Bilby) and 29–30 (O'Connell).

[84] This volume is commonly pre-sold ahead of the next year's delivery. Conference transcript, pp. 30–31 (O'Connell). Some northern storage locations require additional heating equipment to account for salting-out at lower temperatures. Conference transcript, p. 68 (Will).

[85] Conference transcript, pp. 11 (Kessler) and 13 (Rosenthal). Importers are reportedly subject to the same constraints. Conference transcript, p. 33 (O'Connell).

[86] Petitioner's prehearing brief, pp. 6-11.

[87] Respondent Gavilon Fertilizer's prehearing brief, p. 5.

they do not contest the Commission's preliminary determinations to define a single domestic like product consisting of all UAN, coextensive with the scope.[88] No other respondents raised any domestic like product issues during the hearing, or in their prehearing or posthearing briefs. No party requested data collection for any domestic like product analysis in their comments on draft final phase questionnaires.

[88] Respondents MTHL and Helm Fertilizer's prehearing brief, p. 4.

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

U.S. market characteristics

UAN is urea and ammonium nitrate dissolved in water and is typically sold with a nitrogen content by weight of 28, 30, or 32 percent.[1] UAN is used as a fertilizer by farmers in all regions of the United States with the 32-percent solution being the most widely used. The 28-percent UAN solution is mostly used in states with a colder climate because the solution salts out at a lower temperature than the 32-percent solution.[2] UAN is produced year-round, but farmers generally apply UAN to field crops during the spring while U.S. producers make most of their sales to customers (primarily wholesalers/distributors and retailers) during the summer "fill" months of July through September.[3]

Apparent U.S. consumption of UAN fluctuated during 2019-21. Overall, apparent U.S. consumption in 2021 was 2.9 percent lower than in 2019.

[1] Petition, p. I-6.

[2] "The salting-out temperatures of liquid nitrogen fertilizers like UAN dictate the climates or geographic regions in which a given product can be shipped and stored." Petition, p. I-9.

[3] Petition, pp. I-10, I-20. Most purchasers that reported when fill offers were received reported these in June and July.

U.S. purchasers

The Commission received 33 usable questionnaire responses from firms that had purchased UAN during 2019-21.[4] [5] [6] Twenty-two responding purchasers are distributors, 20 are retailers, 2 are end users,[7] and 1 other ***. Most distributors (15 of 22) reported competing with their suppliers, in addition, one retailer also reported competing with its suppliers. Large purchasers of UAN include ***. In 2021, these six firms accounted for *** percent of the purchases reported by all purchasers in 2021. Eight purchasers were also importers or related to an importer and seven purchasers were also domestic producers, foreign producers, or related to a producer.[8]

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

[5] Of the 33 responding purchasers, 30 purchased the domestic UAN, 17 purchased imports of the subject merchandise from Russia, 13 purchased imports of the subject merchandise from Trinidad and Tobago, 5 purchased imports of UAN from other sources (Canada, Belarus, and Lithuania), and 15 purchased UAN from unknown sources.

[6] Thirty-two purchasers indicated they had marketing/pricing knowledge of domestic product, 19 of Russia product, 16 of Trinidad and Tobago product, and 7 of nonsubject countries.

[7] ***.

[8] ***. ***. ***. ***.

Purchasers' inventories

Purchasers were asked to report their inventories at the end of March, June, September, and December (see appendix D). In all years, purchasers reported that inventories vary by season, and in anticipation of price changes. In 2021, purchasers also reported increased inventories in response to the filing of these cases and because of increases in storage capacity. Other purchasers reduced 2021 inventories in response to price volatility, abnormally high spring sales, and reduced storage capacity.

Channels of distribution

During 2019-21 U.S. producers sold mainly to wholesalers/distributors; importers from Trinidad and Tobago sold mostly to wholesalers/distributors while importers from Russia sold mostly to retailers, as shown in table II-1. Sales to end users were limited.

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

Shares in percent

Source	Channel	2019	2020	2021
United States	Distributors	66.4	65.7	67.1
United States	Retailers	33.6	34.3	32.9
United States	End users	0.0	0.0	0.0
Russia	Distributors	***	***	***
Russia	Retailers	***	***	***
Russia	End users	***	***	***
Trinidad and Tobago	Distributors	***	***	***
Trinidad and Tobago	Retailers	***	***	***
Trinidad and Tobago	End users	***	***	***
Subject	Distributors	***	***	***
Subject	Retailers	***	***	***
Subject	End users	***	***	***
Canada	Distributors	***	***	***
Canada	Retailers	***	***	***
Canada	End users	***	***	***
All other	Distributors	***	***	***
All other	Retailers	***	***	***
All other	End users	***	***	***
Nonsubject	Distributors	***	***	***
Nonsubject	Retailers	***	***	***
Nonsubject	End users	***	***	***
All imports	Distributors	57.0	63.7	61.5
All imports	Retailers	42.1	36.3	37.6
All imports	End users	0.9	---	0.9

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

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

Geographic distribution

U.S. producers and importers from Russia reported selling UAN to all regions in the contiguous United States (table II-2).[9] Importers from Trinidad and Tobago reported selling UAN to ***. For U.S. producers, approximately *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold approximately *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.[10] [11]

Table II-2
UAN: Count of U.S. producers' and U.S. importers' geographic markets

Region	U.S. producers	Russia	Trinidad and Tobago	Subject sources
Northeast	4	5	***	***
Midwest	6	2	***	***
Southeast	5	3	***	***
Central Southwest	6	2	***	***
Mountain	7	3	***	***
Pacific Coast	7	4	***	***
Other	0	0	***	***
All regions (except Other)	4	1	***	***
Reporting firms	8	8	***	***

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

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

Regional availability

In order to better understand how availability of UAN differed by regions, purchasers were asked if availability differed by region and to explain why. Most purchasers (26 of 29 responding) reported that availability differed by region. Seventeen of these purchasers reported different availability in coastal regions or coastal states. Purchasers typically reported that on the coasts there was little availability of U.S.-produced UAN and/or greater availability

[9] While seven U.S. producers reported selling to the Pacific Coast and Mountain regions, ***. The Western region of the United States was defined as including all states in the Mountain, Pacific Coast, and Other regions in this question.

[10] Purchaser IRM notes that U.S. producers are located primarily within the Mississippi River basin and do not ship enough product to supply the needs of farmers on the West Coast and that the distance, cost, and timeliness of shipping to the West Coast all pose challenges to U.S. producers. Conference transcript, pp. 147-148 (O'Neill).

[11] The importer from Trinidad and Tobago sold *** percent within 100 miles of its U.S. point of shipment, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles.

of imported UAN. A number of firms reported that U.S. producers faced high transportation costs or other transportation constraints for shipments to the coastal regions.[12] [13] In addition, some firms did not specify where availability differed but reported that transportation networks or transportation costs were important for availability.[14] Two purchasers *** reported prices of UAN tended to increase as it was further from the coasts or ports.[15]

CF reports that it has "invested to build UAN storage tanks in California and working with Burlington Northern Rail Line to develop competitive rail rates to our tanks there and we have added additional rail cars to our existing fleet of several thousand.[16] Additionally we have contracted several Jones Act vessels to be able to serve the East Coast cost effectively."[17] Respondents claim that "In the period of investigation from whether it was 2018 or 2019 to 2021, it's very clear that CF only had one vessel that was responsible for shipping product to the

[12] *** provided a detailed explanation of transportation costs faced by U.S. producers. It reported that "***."

[13] Additional information on regional availability and inland transportation costs is presented in appendix E.

[14] For example, ***.

[15] ***.

[16] Mr. Bilby testified that "CF has around 2,000 rail cars for transporting UAN and as many as 14 river barge tows on lease." Hearing transcript p. 43 (Bilby).

[17] Hearing transcript p. 34 (Will).

coast. … If they were interested in the coastal business, it would make sense that they would have had more than one vessel."[18] [19]

Importer Helm reported no U.S. producer had production facilities on the CSX Railway network,[20] so it developed a terminal in Alabama to deliver to customers on the CSX railroad "more cost-competitively than any U.S. producer." Helm also developed an arrangement in Stockton, California that it can use to deliver at a lower cost using ocean freight than shipping from U.S. producers either over land or using Jones Act vessels.[21] CF responded that it operated on the CSX railroad and that its ***.[22] MHTL reported that it has "transportation advantages… on the East and West Coasts and the Eastern Cornbelt, where the domestic industry has less of a presence."[23] MHTL also reported more efficiently serving the West, East and Texas Gulf Coasts.[24] The cost of MHTL's shipments to ***.[25]

Regional supply by source

U.S. producers and importers reported shipments by region within the United States (see appendix E). Most shipments were to the Central region (75.1 percent in 2021), followed by the Western region (14.6 percent), and Eastern region (10.2 percent). Table II-3 reports the shares of U.S. producers and importers' sales by region. In all three years, U.S. shipments of U.S. produced and imported UAN from Trinidad and Tobago and nonsubject countries, were mostly to the central region. Most Russian imports, in contrast, were sold on the East and West Coasts. Subject imports sold more UAN than U.S. producers in the Eastern United States in 2019 and 2021 (table E-9). In the other regions, U.S. produced UAN provided the majority of shipments.

[18] Hearing transcript p. 231 (Lambert).

[19] Prior to the filing of the petition, on June 30, 2022, CF operated one Jones Act vessel. Hearing transcript p. 85 (McLain)

[20] CSX system covers areas east of the Mississippi river. https://en.wikipedia.org/wiki/CSX_Transportation.

[21] Hearing transcript p. 189 (Peyton).

[22] Petitioner's posthearing brief, responses to commissioner questions pp. 7-8.

[23] MHTL's posthearing Brief p. 15.

[24] MHTL's posthearing Brief, Annex XII.

[25] MHTL's posthearing Brief, Annex XIV.

Table II-3
UAN: Share (percent) of quantity of by region of sales and period

Source	Region	2019	2020	2021
U.S. producers	Eastern	***	***	***
U.S. producers	Central	***	***	***
U.S. producers	Western	***	***	***
U.S. producers	All regions	100.0	100.0	100.0
Imports from Russia	Eastern	***	***	***
Imports from Russia	Central	***	***	***
Imports from Russia	Western	***	***	***
Imports from Russia	All regions	100.0	100.0	100.0
Imports from Trinidad and Tobago	Eastern	***	***	***
Imports from Trinidad and Tobago	Central	***	***	***
Imports from Trinidad and Tobago	Western	***	***	***
Imports from Trinidad and Tobago	All regions	100.0	100.0	100.0
Imports from subject countries	Eastern	***	***	***
Imports from subject countries	Central	***	***	***
Imports from subject countries	Western	***	***	***
Imports from subject countries	All regions	100.0	100.0	100.0
Imports from nonsubject countries	Eastern	***	***	***
Imports from nonsubject countries	Central	***	***	***
Imports from nonsubject countries	Western	***	***	***
Imports from nonsubject countries	All regions	100.0	100.0	100.0

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

Supply and demand considerations

U.S. supply

Table II-4 provides a summary of the supply factors regarding UAN from U.S. producers and from foreign producers in Russia and Trinidad and Tobago. U.S. and Trinidadian producers reported increasing capacity while Russian producers reported decreasing capacity during 2019-21. U.S., Russian, and Trinidadian producers all reported decreasing capacity utilization and increased inventories. Russian and Trinidadian producers reported modest home market shipments and relatively large export shipments to the United States.[26]

[26] The Trinidadian producer (MHTL) reported *** during 2019-21.

Table II-4
UAN: Supply factors that affect the ability to increase shipments to the U.S. market, by country

Quantity in short tons gross weight; ratio and share in percent; count is number of "yes" responses

Factor	Measure	United States	Russia	Trinidad and Tobago	Subject sources
Capacity 2019	Quantity	15,936,181	***	***	***
Capacity 2021	Quantity	16,105,941	***	***	***
Capacity utilization 2019	Ratio	80.0	***	***	***
Capacity utilization 2021	Ratio	77.1	***	***	***
Inventories to total shipments 2019	Share	***	***	***	***
Inventories to total shipments 2021	Share	***	***	***	***
Home market shipments 2021	Share	***	***	***	***
Non-US export market shipments 2021	Share	***	***	***	***
Ability to shift production (firms reporting "yes")	Count	***	***	***	***

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

Note: Responding U.S. producers accounted for virtually all of U.S. production of UAN in 2021. Responding foreign producer/exporter firms accounted for more than half of U.S. imports of UAN from Russia during 2021. Responding foreign producer/exporter firms accounted for virtually all of U.S. imports of UAN from Trinidad and Tobago during 2021. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

Note: Capacity utilization is measured as a ratio of production to capacity, ending inventories is measured as a ratio to total shipments, home market 2021 and non-U.S. export market 2021 shipments are measured as a share of total shipments.

Domestic production

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

U.S. production capacity increased steadily between 2019 and 2021 while production declined in 2021, reducing capacity utilization. Exports declined from *** percent of U.S. production in 2019 to *** percent in 2021. A number of producers reported that the 2018 EU antidumping investigation on UAN from Russia, Trinidad and Tobago, and the United States, and its imposition of duties in 2019 on UAN acted as a barrier to U.S. exports and increased the U.S. producers' sales of UAN to the U.S. market. Other products that producers reportedly can produce on the same equipment as UAN include urea, ammonia, ammonium nitrate, and diesel exhaust fluid.[27] Producers also reported that UAN production was limited by the availability of inputs ***.

U.S. producers reported that a number of factors unrelated to imports caused reduced UAN production in 2021. First, because of COVID-19, some firms postponed maintenance in 2020 leading to increased maintenance downtime in 2021. Second, the price of natural gas spiked in February 2021 and as a result, some producers chose to temporarily reduce or stop UAN production.[28] Third, ***.

Subject imports from Russia

Based on available information, producers of UAN from Russia have the ability to respond to changes in demand with small changes in the quantity of shipments of UAN to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the ability to shift shipments from alternative markets.[29] Factors mitigating responsiveness of supply include limited availability of unused capacity or inventories, and no ability to shift production to or from alternate products.

Capacity and production decreased during 2019-21, but production decreased *** more, resulting in a *** decrease in capacity utilization. Inventories increased *** during 2019-21 but were relatively low throughout the period. Export shipments to non-U.S. markets as a share of total shipments increased from *** percent in 2019 to *** percent in 2021.

[27] Diesel exhaust fluid is a mixture of water and urea used to neutralize nitrous oxide emissions.
[28] ***. ***
[29] Non-U.S. export markets include ***.

Subject imports from Trinidad and Tobago

Based on available information, the sole producer of UAN from Trinidad and Tobago (MHTL) has the ability to respond to changes in demand with small changes in the quantity of shipments of UAN to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the ability to shift shipments from alternative markets. Factors mitigating responsiveness of supply include limited availability of unused capacity or inventories and no ability to shift production to or from alternate products.

Both capacity and production increased during 2019-21, however, capacity increased more than production resulting in a decrease in capacity utilization from *** percent in 2019 to *** percent in 2021. The ratio of inventories to total shipments increased from *** percent in 2019 to *** percent of total shipments in 2021. Export shipments to non-U.S. markets as a share of total shipments were relatively unchanged, *** percent in 2019 and *** percent in 2021.

Imports from nonsubject sources

Nonsubject imports accounted for 24.3 percent of total U.S. imports in 2021. The largest source of nonsubject imports during 2019-21 was Canada, accounting for the vast majority of nonsubject imports. Other nonsubject sources include Belarus, Estonia, Lithuania, the Netherlands, and Poland.

Supply constraints and availability

Four of 8 U.S. producers, 6 of 10 importers, and 23 of 33 responding purchasers reported that they had experienced supply constraints between January 1, 2019, and the filing of the petition. Three of 8 producers, 7 of 10 importers, and 21 of 30 purchasers reported that they had experienced supply constraints since the filing of the petition on June 30, 2021. Reasons for supply constraints before the filing of the petition reported by the producers included: unanticipated mechanical issues and production facilities required allocation to manage inventories, unplanned production outages have resulted in delayed deliveries of a few weeks, “freeze events,” planned production outages for maintenance, and unplanned outages.[30] Importers and purchasers reported a number of reasons for supply constraints. Eleven of these mentioned problems related to supply from CF including: CF’s limited supply to

[30] In the hearing the petitioners reported supply constrains as a result of flooding on the Mississippi River in 2019 and winter storm Uri in 2021. Hearing transcript pp. 45, 55-56, 119, 156 (Bilby, O’Connell, Hartman, Will).

the costal markets and its focus on the inland market; CF regularly puts customers on allocation; and CF has declined to offer. Similar allocation issues and lack of availability on the coasts were also reported for other U.S. producers or U.S. producers generally; purchasers and/or importers also reported transportation difficulties and late deliveries; seasonal allocations limiting the availability of UAN because demand is seasonal and somewhat unpredictable depending on the weather; producers not offering UAN for sale (including producers not providing the amount ordered or allowing a firm to buy as much as it wanted, producers not pricing "product for periods of many weeks at a time," a consistent lack of allocations to Texas and East Coast markets, and limitations for the amount sold in certain markets in order to sell to these markets at higher prices at other times); limited availability of Russian UAN because it sells globally and it is building granulating capacity that makes liquid UAN less available; and weather disrupted supply.

Since the filing of the petition, the market for UAN has faced a number of challenges including reduced imports from subject countries due to potential duties, the Russian invasion of Ukraine, and higher gas prices reducing UAN production in other parts of the world. Firms also reported additional supply constraints including: importers refusing to supply imported product; greater supply disruptions on the East and West Coasts; all fertilizer suppliers the company speaks with regularly limit the UAN they are willing to sell; U.S. producers are unable to fill the demand; [31] CF declared force majeure and took contract tons away from the purchasers not honoring the agreed price and pull window; a purchaser with inadequate product to sell to its customers; uncertainty if the orders will be upheld preventing purchases at higher prices because of the risk that the price will fall if duties are not imposed; the Russian conflict and sanctions creating uncertainty in the supply UAN causing UAN prices to be the highest they have been known to be; high energy costs reducing nitrogen production worldwide; increased transportation costs; and logistics capacity is inadequate to meet demand in season.

Respondent EuroChem states that there is currently a shortage of UAN and fertilizer in general.[32] Mr. Kelly stated that the National Corn Growers' staff "have been contacted repeatedly from our State Association affiliate, the Corn Growers Association of North Carolina, about shortages of UAN, which they get in through the Port of Wilmington" (when this occurred is less clear).[33]

[31] Examples of supply limitations both after the filing of the petition are provided in Gavilon's prehearing brief, Ex. 2-A and 2-B.

[32] EuroChem's posthearing brief p. 7.

[33] Hearing transcript, p. 279 (Kelly).

Petitioner states that U.S. sanctions do not cover imported fertilizer from Russia[34] and "there is no indication that OFAC's (Treasury's office of foreign assets control) adjacent sanctions against Russia, including the prohibition of transacting with the Central Bank of Russia, have created barriers to subject Russian imports."[35]

New suppliers

All 33 purchasers reported no new suppliers had entered the U.S. market since January 1, 2019.

Fill programs

CF stated that "The U.S. fertilizer year starts in July. At the beginning of the fertilizer year, U.S. producers like CF launch 'summer fill' campaigns typically running from July to August or September, though the exact days can vary…. The summer fill occurs long before the spring application season, a four-to-six week period usually starting in May or April, when most UAN in the United States is consumed…. U.S. producers like CF have to operate year round in order to maintain high, steady rates of production. But CF doesn't have enough storage to hold all of its annual production until farmers are ready to buy it. So, CF aims to sell a quarter to half of our annual production during summer fill. The tons sold during summer fill are typically delivered to the wholesale or retailer customer well in advance of the spring application." [36] Prices tend to be low.[37]

Purchasers were asked if they had been offered fill programs in 2019, 2020, and 2021, when during each year they had been offered fill programs, and which firms offered fill programs. Firm by firm responses to the questions on the fill programs are reported in appendix F. Eighteen purchasers reported the timing of the fill programs, with 16 of these reporting that fill programs occurred in either June or July (depending on the year). Of the two that did not report fill programs occurring in June or July, one of these, ***, reported a fill program in July/August (***). The other (***) reported purchasing under a fill program offered by ***.[38]

[34] CF's posthearing brief, responses to Commissioner questions p. 100
[35] CF's posthearing brief, responses to Commissioner questions p. 101
[36] Hearing transcript pp. 50-51, (O'Connell).
[37] Hearing transcript pp. 51, (O'Connell).
[38] *** reported fill programs were in June and July but also reported on other offers at other times in 2020 and 2021.

Other characteristics of the fill programs were not consistent from firm to firm, with some reporting that the offer was only available for a few hours while others reported weeks to make their decision on fill programs. Firms reported to offer fill programs included: U.S. producers CF, CVR, Iowa Fertilizer, and Koch; importers Koch, Gavilon, and Nutrien; and purchasers ***.

Most purchasers reported participating in fill programs for at least one year during 2019-21. Eight of 32 responding purchasers either reported that they did not participate in fill programs, did not receive a fill offer, did not know, that it was not the type of purchaser targeted by these programs, or did not respond to the question.[39] Purchaser ***.

Most responding purchasers were not located on the East and West Coast regions. Eight purchasers were headquartered in states (California, Florida, and Georgia) which were neither on the Mississippi River and its major tributaries nor on the Great Lakes.[40] Only two of these eight purchasers (***) reported purchasing under a fill program. ***.[41] ***.

Additional information on price setting under fill programs is included in part V.

U.S. demand

Based on available information, the overall demand for UAN is likely to experience moderate changes in response to changes in price. The main contributing factors are planted acreage by crop (this is influenced by crop prices, crop inventories, and the cost share of fertilizers in crops), the amount of fertilizer used per acre,[42] the availability and viability of substitute products, and weather.

[39] These eight purchasers were ***.

[40] Purchasers were not asked to report the market that they served; as a result this section of part II focuses on firms' headquarters, assuming that this reflected to some extent the market firms serve. The eight firms headquartered in California, Florida, and Georgia were ***.

[41] ***.

[42] Crop prices influence both the acreage planted in the crop and the amount of fertilizer used for the crop. When crop prices are higher farmers tend to increase fertilizer use per acre to increase the output per acre.

End uses and cost share

U.S. demand for UAN depends on the demand for U.S.-grown agricultural crops. The estimated cost share of UAN varies greatly both between crops and within crops.[43] [44]

- Corn: most firms reported 7 to 35 percent,
- Pasture 5 to 25,
- Wheat: most firms reported 5 to 20 percent, and
- Cotton: 3 percent.

UAN likely accounts for a moderate-to-high share of the cost to grow crops.[45]

Business cycles

All 8 U.S. producers, all 10 importers, and 27 of 33 purchasers indicated that the market was subject to business cycles or distinctive conditions of competition. Specifically, demand is seasonal,[46] demand changes with the number of acres planted, and demand increases with the increase in the price of farm products. Distinctive conditions of competition reported include: bad weather can reduce fertilizer use overall and/or limit river transportation; UAN can be used at more stages of planting than other nitrogen fertilizers thus weather may increase demand

[43] Only one firm reported cost shares of UAN in all other crops, and the cost shares reported for the different crops ranged widely.

[44] Cost shares of 100 percent were excluded since they were not responses to the question asked.

[45] "From 2010 to 2019, fertilizer was a major expense in U.S. corn production, accounting for 33 to 44 percent of operating costs—a category that includes other variable expenses like seed, chemicals, fuel, and repairs. Fertilizer also comprised 16 to 24 percent of the average corn producer's total costs, which include overhead charges like land costs, machinery depreciation, and farm taxes." U.S. Department of Agriculture (USDA), Economic Research Service (ERS), Commodity Costs and Returns. https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=100882.

The Farm Bureau estimated that fertilizer (including fertilizers providing nitrogen, phosphorus, and potassium) accounted for 15 percent of total cash costs for farms in the United States. https://www.fb.org/market-intel/too-many-to-count-factors-driving-fertilizer-prices-higher-and-higher

[46] Seasonal factors reported in the questionnaires include UAN is applied during the growing season which is March through July west of the Rockies but the season is shorter east of the Rockies; UAN is applied in the spring and fall; purchasers try to purchase when demand is low/during the summer fill season; prices tend to rise in the spring with farm demand for UAN; UAN is used heavily in the spring but little in the rest of the year; and the supply chain is replenished when demand is low. CF testified that "California is a different market. We have a much more prolonged consumption period of six to eight months because you have different crops, trees, and growing cycles. The summer fill program that we talk about is a lot more for row crops, which is more of a six to eight week cycle application, which is April, May, and June." Hearing transcript, p. 138 (Frost).

for UAN;[47] production tends to be east of the Rockies and shipping west over the Rockies creates difficulties; domestic producers cannot reach some destinations because of logistics, imports freight is more economical when it is delivered directly to a point than domestics supply only at the end of a rail line; and UAN prices are publicly available.[48]

Most responding producers (6 of 8) reported no change in business cycles or conditions of competition. In contrast, most responding importers (7 of 10) and purchasers (19 of 32) reported that there had been changes in cycles or conditions since 2019. Major changes listed were:

- The 2019 EU imposition of antidumping duties UAN imports on the United States, Russia, and Trinidad and Tobago (resulting in more U.S.-produced UAN to be available in the U.S. market and U.S. producers desiring to fill U.S. demand on the East and West Coast)
- Weather (in 2019, floods in the Midwest reduced UAN consumption, and Hurricane Ida reduced 2021 UAN production)
- Changes caused by COVID-19 disruptions (in 2020 maintenance was deferred to 2021 reducing 2021 production, and logistical problems resulting from COVID-19 disruptions)
- Changes caused by the filing of the UAN petition (reduced imports and inadequate supply on the East and Gulf Coasts and increased prices)
- Changes caused by the Russian invasion of Ukraine (reduced production of UAN in much of Europe because the shortage/increased cost of natural gas, increased price of natural gas in the United States, and the Russian ban on fertilizer exports)
- Limited supply/shortage of UAN.

[47] Other nitrogen fertilizers typically must be applied before planting, thus if rain prevents application of other nitrogen fertilizer before planting, UAN use may increase because it can be applied after planting.

[48] "U.S. fertilizer prices sank through the fall of 2019 as poor weather restricted fertilizer applications, limiting wholesale trade and retailers retained high stocks. Spring applications should finish rebalancing the market, if weather and river conditions allow." https://www.argusmedia.com/en/news/2075753-us-fertilizer-consumption-to-rise-with-acreage; retrieved January 8, 2022.

Demand trends

Most firms reported U.S. demand for UAN had either increased or fluctuated since January 1, 2019 (table II-5). Only one purchaser (***) reported U.S. and foreign demand for UAN had decreased. It reported that demand was mostly stable up to 2022, but in 2022 "dramatic price increases caused demand destruction." Purchasers were asked how demand for their end user products had changed since January 1, 2019. Purchasers were asked how demand for end user products had changer. Nine purchasers each reported demand was unchanged and demand fluctuated, eight reported demand increased, and none reported decreased demand.

Table II-5
UAN: Count of firms' responses regarding overall domestic and foreign demand, by firm type

Market	Firm type	Increase	No change	Decrease	Fluctuate
Domestic demand	U.S. producers	6	1	0	1
Domestic demand	Importers	4	0	0	6
Domestic demand	Purchasers	12	9	1	10
Foreign demand	U.S. producers	4	1	0	2
Foreign demand	Importers	3	0	0	4
Foreign demand	Purchasers	10	4	1	4

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

Demand for UAN is driven by agricultural plantings and is concentrated in the Midwest/Corn Belt region, Texas, and California, with Nebraska being the largest consumer of UAN of any state.[49] [50] [51] UAN is applied primarily during April-June in a given year, with weather, crop rotations, fertilizer use rates, crop prices relative to fertilizer prices, and UAN prices relative to other nitrogen fertilizer prices on a nutrient-content basis also impacting demand.[52] The USDA reports the different amount of nitrogen fertilizer used by the four largest reported crops. Corn required the largest amount of nitrogen (146 pounds per acre), followed by spring wheat (99 pounds per acre), cotton (89 pounds per acre), winter wheat (64 pounds

[49] Petition, p. I-20.

[50] The Corn Belt region covers Illinois, Indiana, Iowa, Minnesota, Nebraska, and Ohio. https://agclass.nal.usda.gov/mtwdk.exe?k=glossary&l=60&w=3861&s=5&t=2.

[51] Total commercial sales of UAN in Nebraska were not available for 2021, these data were reported to be available 6 months from the date of the actual sale. Total commercial sales of 32-percent UAN in Nebraska were 1.6 million tons in 2019 and 1.5 million tons in 2020. Commercial sales of 28-percent UAN in Nebraska were 89 thousand tons in 2019 and 82 thousand tons in 2020. Nebraska Fertilizer, Soil Conditioner and Ag Lime Tonnage and Sampling Report, Calendar years 2019 and 2020. https://nda.nebraska.gov/plant/fertilizer/index.html.

[52] Petition, I-6.

per acre), and soybeans (5 pounds per acre). Thus the farmers can change the amount of UAN required by shifting between crops, however, other factors will also be important in the decision of which crop is most profitable and most viable. Respondents claim that "many farmers intend to switch from corn to soybeans" because of fertilizer shortages and high prices.[53]

Once the crop is set, the optimal level of nitrogen fertilizer tends to change little as the price of fertilizer increases. For example, a Canadian agricultural publication (Field Crop News) calculated that corn growers' most profitable average use of nitrogen fertilizer would decline 9 percent if the cost of nitrogen doubles, while the price of corn increased 35 percent.[54]

UAN is used on a wide variety of crops including corn, wheat, cotton, rice, sugar cane, and other grains.[55] The area planted for principal crops grown in the United States was 317.2 million acres in 2021, up 5 percent from 303.1 million acres in 2019 (figure II-1).[56] As shown in the figure, the area planted for corn was 92.7 million acres in 2021, up 3.3 percent from 89.7 million acres in 2019.[57] The area planted for soybeans was 87.6 million acres in 2021, up 15.0 percent from 76.1 million acres in 2019. The area planted for wheat increased 3.5 percent and the area planted for cotton decreased 16.1 percent from 2019 to 2021.[58] Between 2021 and 2022 according to the USDA, corn acreage is predicted to decrease by 4 percent, with soybean acreage increasing 1 percent, wheat acreage increasing 1 percent, and cotton acreage increasing 11 percent.

[53] Hearing transcript, p. 208 (Riensche).

[54] How Low Should You Go? Adjusting Corn Nitrogen Rates for High Fertilizer Prices. https://fieldcropnews.com/2022/03/how-low-should-you-go-adjusting-corn-nitrogen-rates-for-high-fertilizer-prices/ retrieved 6/22/2022.

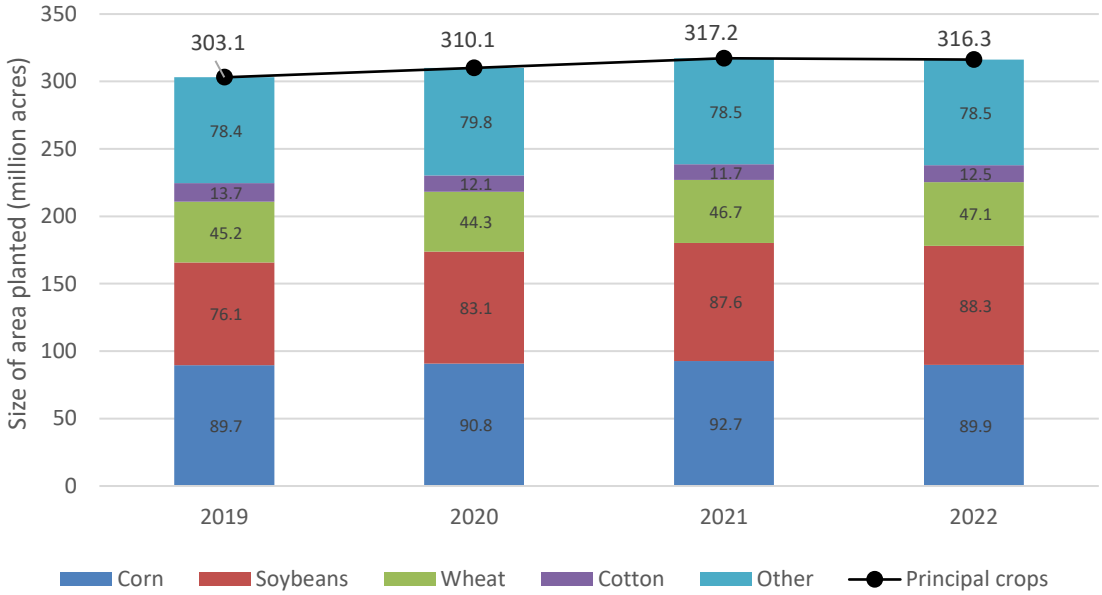
[55] Petition, pp. I-9-10.

[56] Principal crops included in area planted are corn, sorghum, oats, barley, rye, winter wheat, durum wheat, other spring wheat, rice, soybeans, peanuts, sunflower, cotton, dry edible beans, chickpeas, potatoes, sugar beets, canola, and proso millet. Harvested acreage is used for all hay, tobacco, and sugarcane in computing total area planted. This includes double cropped acres and unharvested small grains planted as cover crops.

[57] The area planted for corn grown in the Corn Belt region was 49.7 million acres in 2019, 52.1 million acres in 2020, and 51.5 million acres in 2021.

[58] In recent years, U.S. wheat and cotton growers have struggled with volatile prices, high production costs, and weather issues. https://www.uswheat.org/wheatletter/usda-predicts-slight-decline-in-u-s-spring-wheat-planted-area/. https://www.cottonfarming.com/breakingnews/ncc-survey-points-to-5-2-reduction-in-planted-acres-for-2021/.

Figure II-1
Principal crops: United States size of area planted in acres by crop type, 2018-2022



Source: National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA), Acreage, June 28, 2019, June 30, 2020, June 30, 2021, and June 30, 2022. https://usda.library.cornell.edu/concern/publications/j098zb09z. retrieved June 30, 2022

Note: Underlying data for figures in Part II are in Appendix F.

Demand for UAN is also affected by crop inventories (stock) and the different use rates of different crops. The stock-to-use ratio for corn was 15.5 percent in marketing year 2018/2019, 13.7 percent in 2019/2020, 8.3 percent in 2020/2021, and is projected to be 9.6 percent in 2021/2022.[59] As grain prices increase, farmers' demand for fertilizer tends to increase.[60] The average price received by farmers for corn increased 53.7 percent between January 2019 and December 2021, soybean prices increased 44.7 percent, wheat prices increased 62.5 percent, and cotton prices increased 33.9 percent (figures II-2 and II-3).[61] Over

[59] The marketing year for corn is September through August. Stocks are inventories at a given point in time and corn uses include feed, food, ethanol, and other industrial productions. High stock-to-use ratios indicate that more supply is available, generally leading to lower prices, while low stock-to-use ratios indicate tight supply and higher prices. Zulauf, C., G. Schnitkey, K. Swanson and N. Paulson. "Stock-to-Use Ratios of U.S. Corn, Soybeans, and Wheat Since 1960." farmdoc daily (11):92, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 14, 2021.

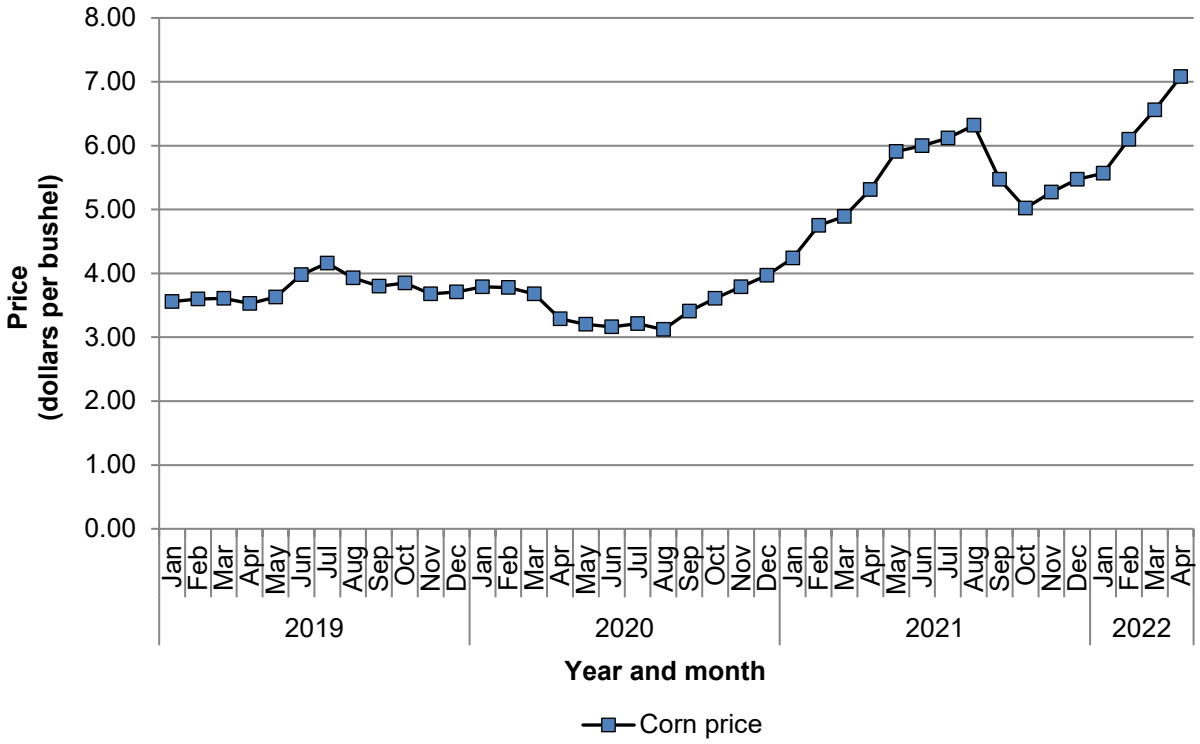
For marketing year 2019/20, stocks were 1,919 million bushels and use was 13,963 million bushels; 2020/21, stocks were 1,235 million bushels and use was 14,821 million bushels; and 2021/22 projected, stocks are 1,440 million bushels and use is 14,935 million bushels. United States Department of Agriculture (USDA), World Agricultural Supply and Demand Review, April 8, 2022.

[60] Conference transcript, p. 127 (Will).

[61] These prices are actual prices, not seasonally adjusted prices.

this period, corn, soybeans, wheat, and cotton prices were lowest in August 2020, May 2019, September 2019, and May 2020, respectively, and highest in August 2021 (corn), May 2021 (soybeans), and December 2021 (wheat and cotton). The price of corn rose 29.4 percent between December 2021 and April 2022, soybean prices increased 26.4 percent, wheat prices increased 18.9 percent, and cotton prices increased 25.6 percent.

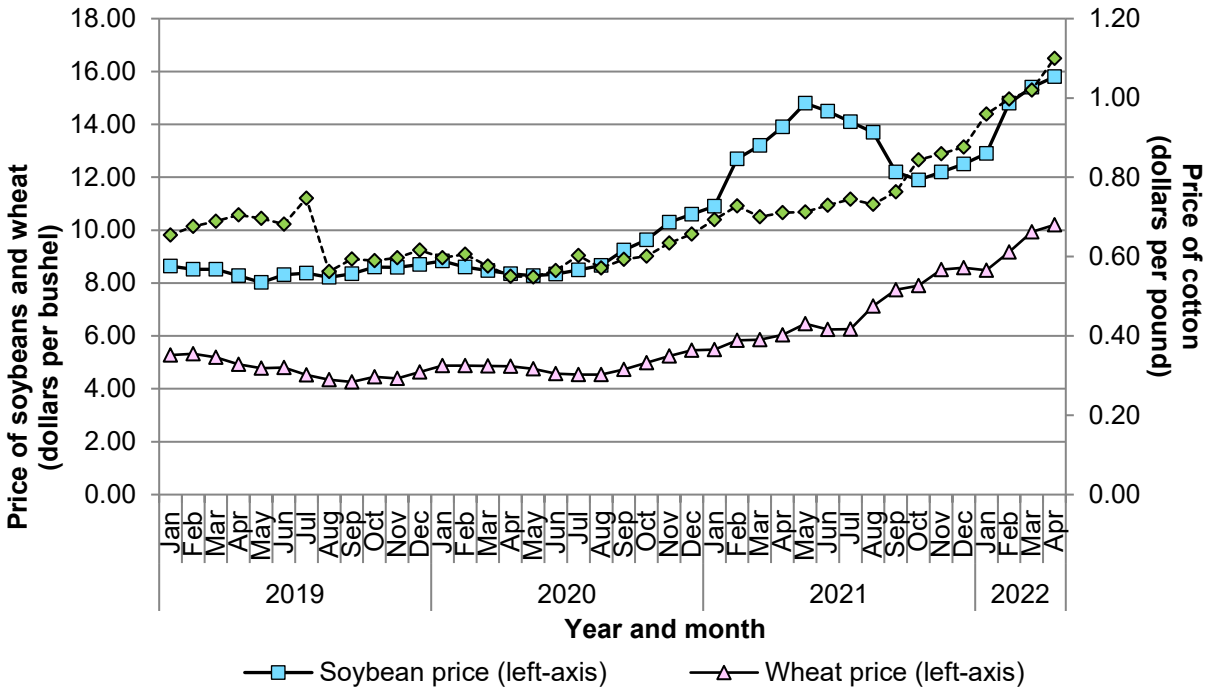
Figure II-2
Corn: Prices by month, January 2019 through April 2022



Source: National Agricultural Statistics Service (NASS), Quick Stats, Corn, Grain - Price Received, Measured in dollars per bushel, United States Department of Agriculture (USDA), accessed June 9, 2022. https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/pricecn.php.

Note: Underlying data for figures in Part II are in Appendix F.

Figure II-3
Cotton, wheat, and soybeans: Prices by month, January 2019 through April 2022



Source: Soybeans and wheat prices: https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/index.php, accessed June 9, 2022. Cotton prices were provided by Becky Sommer from USGS.

Note: Underlying data for figures in Part II are in Appendix F.

Substitute products

Most U.S. producers (7 of 8), all 10 importers, and most purchasers (27 of 30) reported that there were substitutes for UAN, including anhydrous ammonia, urea, and ammonium nitrate (aqueous or solid).[62] Most of the firms reporting substitutes also reported that the price of substitutes affect the price of UAN. Reasons for this include: all these products are made from natural gas and are typically made in the same factories causing their prices to move in tandem; purchasers will switch between these substitutes if the price of one is out of line and if distributors, dealers, and farmers have the equipment needed to transport, store, and apply the substitute; prices of substitutes tend to move together, but if they fall out of alignment

[62] UAN, anhydrous ammonia, urea, and ammonium nitrate are either ammonia or produced from ammonia. Thus, the availability of all these products is limited by the nitrogen fertilizer producers' overall capacity to produce ammonia.

users will switch; and substitution is limited because UAN can be used in a spray with other chemicals and has a longer application time frame.[63]

Substitutability issues

This section will assess the degree to which U.S.-produced UAN and imports of UAN from subject countries can be substituted for one another by examining the importance of certain purchasing factors and the comparability of UAN from domestic and imported sources based on those factors. Based on available data, staff believes that there is a moderate-to-high degree of substitutability between domestically produced UAN and UAN imported from subject sources.[64] The primary factors contributing to a relatively high level of substitutability are the similar quality and interchangeability between domestic and subject sources. Factors reducing substitutability include some availability issues, transportation limitations, and different lead times from domestic and subject sources.

Factors affecting purchasing decisions

Purchaser decisions based on source

As shown in table II-6, most purchasers sometimes or never make purchasing decisions based on the producer and most of their customers never make purchasing decisions based on the producer. Most purchasers and their customers never make purchasing decisions based on the country of origin. Three purchasers reported that they always make decisions based the manufacturer. Purchasers that reported always purchasing based on the producer explained that some suppliers provide good service and volume needed in some areas, or cited an agreement with its supplier, contractual obligations, or availability.[65] Reasons purchasers reporting usually purchasing by producer included: good relationship; prefer domestic if

[63] Reasons importers and purchasers reported that these other nitrogen fertilizers did not affect the price of UAN included: UAN may be useable when weather prevents the use of other nitrogen fertilizers; each type of nitrogen fertilizers requires different farm equipment; different nitrogen fertilizers have different logistics and different bottlenecks; and UAN faces potential dumping duties, urea does not.

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

[65] ***.

logistics or costs do not make them uncompetitive; usually purchase from ***; if prices are the same will purchase from supplier that provide better service and market intelligence; buy based on service flexibility or shipping terms; purchase based on location of supply; purchase mostly domestic UAN because of transportation, seasonal timing, and distributional system provides this economically.

Table II-6
UAN: Count of purchasers' responses regarding frequency of purchasing decisions based on producer and country of origin

Firm making decision	Decision based on	Always	Usually	Sometimes	Never
Purchaser	Producer	3	8	6	16
Customer	Producer	0	3	5	23
Purchaser	Country	0	2	3	28
Customer	Country	0	1	4	25

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

Importance of purchasing domestic product

Twenty-eight of 32 responding purchasers reported that none of their purchases required purchasing U.S.-produced product. None reported that domestic product was required by law or required by their customers, and four reported other preferences for domestic product for 10 to 93 percent of their purchases. Reasons cited for preferring domestic product included: transportation system, timing, and for some tons it makes sense to purchase domestic UAN.

Most important purchase factors

The most often cited top three factors that firms consider in their purchasing decisions for UAN were price (26 firms), availability (23 firms), and delivery (22 firms)[66] as shown in table II-7. Price was the most frequently cited first-most important factor (cited by 12 firms), followed by availability (10 firms); price and availability were the most frequently reported second-most important factor (9 firms each); and delivery was the most frequently reported third-most important factor (9 firms). Only five firms reported quality was one of the top three factors.

[66] Some responses could be allocated to either availability or delivery because delivery issues may have reflected the lack of product available at times for delivery in addition to problems with the delivery itself. See the note to the table for how the responses have been allocated.

Table II-7
UAN: Count of ranking of factors used in purchasing decisions as reported by purchasers, by factor

Factor	First	Second	Third	Total
Price	12	9	5	26
Availability	10	9	4	23
Delivery	5	8	9	22
Relationship with supplier	5	1	8	14
Payment terms	0	2	4	6
Quality	1	3	1	5
All other factors	1	1	1	NA

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

Note: “All other factors” includes risk (credit/performance/country) for first factor, supplier's product line for second factor and trustworthiness for the third factor. Availability includes availability of timely shipments, availability/ timing, ability to supply product, and availability of product in desired time frame. Delivery includes reliability, reliability of supply, reliability of the supplier, logistics, transportation costs, location/location of product availability, ability to ship, ability to supply/meet delivery window, and shipment window flexibility. Relationship with the supplier includes contract, supply or marketing agreement, ability to partner with the purchaser, ease of doing business with, and traditional supplier. One firm reported both delivery and quality as first factor, both are included in the table above.

The majority of purchasers (22 of 33) reported that they usually purchase the lowest-priced product.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 17 factors in their purchasing decisions (table II-8). The factors rated as very important by more than half of responding purchasers were availability (all 33 firms), reliability of supply (32), quality meets industry standards (30), delivery time and price (27 each), product consistency (24), delivery terms and U.S. transportation costs (22 each), and geographic proximity (19). There were eight factors that more firms reported were not important factors than reported were very important including packaging (29 reported as not important), product range (20), technical support/service (19) quality exceeds industry standards (18), minimum quantity requirement (16), N-concentration levels 28% and 30% (15), and payment terms (9).

Table II-8
UAN: Count of purchasers' responses regarding importance of purchase factors, by factor

Factor	Very important	Somewhat important	Not important
Availability	33	0	0
Delivery terms	22	10	1
Delivery time	27	6	0
Discounts offered	9	17	6
Geographic proximity	19	9	5
Minimum quantity requirements	4	13	16
N-concentration levels 28% and 30%	9	10	15
Packaging	1	3	29
Payment terms	8	16	9
Price	27	6	0
Product consistency	24	8	1
Product range	6	6	20
Quality meets industry standards	30	3	0
Quality exceeds industry standards	9	6	18
Reliability of supply	32	1	0
Technical support/service	2	12	19
U.S. transportation costs	22	8	3

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

Lead times

UAN is primarily sold from inventories. U.S. producers reported that *** percent of their commercial shipments came from inventories, with lead times averaging *** days. The remaining *** percent of U.S. producers' commercial shipments were produced to order, with lead times averaging *** days. Most of U.S. producers' sales of UAN (*** percent) were forward sales under short-term contracts with durations ranging from 84 to 100 days.[67]

Importers reported that *** percent of their commercial shipments came from U.S. inventories, with lead times ranging from *** days (averaging *** days).[68] The remaining

[67] Conference transcript, p. 30 (O'Connell), p. 71 (Frost). For more information on contracts, please see "Pricing methods" in Part V.

[68] Importer ***. ***, email to USITC staff, July 15, 2021.

Respondent importer Helm reported that rail deliveries to its customers from its Theodore, Alabama distribution facility takes *** days. Respondents MHTL and Helm's postconference brief, Affidavit of Michael Peyton, p. 2.

Respondent purchaser IRM stated that it receives UAN into a distribution system by ocean vessel, river barge and/or rail car, and it is delivered to its customers by truck on "a just in time basis" to satisfy demand when the customer wants it. Delivery to its customers takes hours. Conference transcript, pp. 146, 184 (O'Neill).

*** percent of their commercial shipments came from foreign inventories, with lead times ranging from *** days (averaging *** days). ***.

Supplier certification

Seven of 33 responding purchasers require their suppliers to become certified or qualified to sell UAN to their firm. Purchasers reported that the time to qualify a new supplier took up to 15 days. No purchasers reported that any supplier had failed in its attempt to qualify UAN or had lost its approved status since 2019.

Minimum quality specifications

As can be seen from table II-9, most responding purchasers reported that domestically produced (26 of 29), Russian (15 of 18), and Trinidadian (14 of 17) UAN always met minimum quality specifications. Five responding purchasers reported that UAN from nonsubject sources always or usually met minimum quality specifications.

Table II-9
UAN: Count of purchasers' responses regarding suppliers' ability to meet minimum quality specifications, by source

Source of purchases	Always	Usually,	Sometimes	Rarely or never	Don't Know
United States	26	3	0	0	4
Russia	15	3	0	0	15
Trinidad and Tobago	14	3	0	0	16
Nonsubject sources	3	2	0	0	17

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

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

Purchasers reported quality was determined by factors including: meet industry standards (nitrogen percent, specific gravity); cleanness (free of debris/contaminants); does not salt out (salt out temperature); appearance (color, clarity); contains a rust inhibitor; and no significant ammonia smell.

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2019 (table II-10). Purchasers that reported decreasing their purchases of domestically produced UAN cited that it was not available, the firm's overall purchases declined, and *** responded that it had "***".[69] Firms that increased purchases of domestically produced UAN reported an increase in overall UAN purchases, an increase in ***, and a reduction in the availability of subject imports. Firms that reduced purchases of Russian UAN reported diversification of supply, reduced overall purchases, and less Russian UAN available ***. Purchasers that increased Russian UAN purchases reported price and availability as reasons. Purchasers that reduced purchases of Trinidadian UAN reported that less was offered and those that increased purchases of Trinidadian UAN reported availability/availability on the East Coast, and its supplier used this source.

Table II-10
UAN: Count of purchasers' responses regarding changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Decreased	Increased	Constant	Fluctuated	Did not purchase
United States	3	12	7	8	0
Russia	8	2	1	5	8
Trinidad and Tobago	3	3	3	3	12
Nonsubject sources	0	0	2	2	15
Sources unknown	1	2	5	4	12

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

Of the four firms that increased purchases of UAN from subject countries, one increased purchases of both Russian and U.S.-produced UAN, one reduced purchases of U.S.-produced UAN while increasing purchases of UAN from Russia and Trinidad and Tobago, one reduced purchases of U.S.-produced and Russian UAN while increasing purchases of product from Trinidad and Tobago, and one increased purchases of UAN produced in the United States and Trinidad and Tobago, but reduced purchases of Russian UAN. Eight purchasers reported they had reduced their purchases of Russian UAN and increased domestic UAN purchases.[70] Two

[69] ***.

[70] This includes one firm that reduced purchases of UAN from Trinidad and Tobago and from Russia but increased purchases from the United States and one that increased purchases from the United States and Trinidad and Tobago and reduced its purchases from Russia.

firms reported both increased purchases of U.S. product and reduced purchases from Trinidad and Tobago.[71]

Eight of 33 responding purchasers reported they had changed suppliers since January 2019. Reasons for changes included: *** *** which caused increased purchases from domestic producers; *** reentered the UAN business and that it contacted ***; *** added *** because *** had no product available in its area; broker moved its source; *** reported it faced a shortage and that it attempted unsuccessfully to find new suppliers; as its purchases fell, *** has shifted purchasers to mainly one source ***, however as product from *** became less available, purchases in 2022 returned to ***; *** tried to limit its purchases from *** because of lack of supply in some markets, prior to the orders it had contracted with *** to guarantee supply; and *** reported purchasing less from *** and more from ***.

Purchase factor comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing UAN produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 17 factors for which they were asked to rate the importance (table II-11). Most purchasers reported U.S.-produced and Russian UAN were comparable on 13 factors. For availability (the factor reported as very important by all purchasers), responses were split with 10 purchasers reporting they were comparable, 7 that U.S.-produced UAN was superior, and 5 reporting U.S.-produced UAN was inferior;[72] for reliability of supply, 11 purchasers reported U.S. and Russian product were comparable, 5 reported U.S. product was superior, and 6 reported U.S. product was inferior; for geographic proximity half the responses were that U.S. UAN was superior.[73]

[71] This includes one firm that reduced purchases of UAN from Trinidad and Tobago and from Russia but increased purchases from the United States.

[72] Two purchasers explained their responses on availability in the question requesting other explanations. *** reported that it rated the availability of U.S. UAN as superior to Russian and Trinidadian producers' UAN only because its business is concentrated in the Midwest, if its business were in coastal areas it reported that the answers would differ. *** reported that it rated the availability of U.S. produced UAN as inferior to Russian and Trinidadian produced UAN because U.S. UAN was less available on the coasts.

[73] For minimum quantity requirement 10 firms reported the two countries UAN was comparable, 7 reported U.S. product was superior, and 5 reported Russian product was superior.

Most purchasers reported U.S. and Trinidadian UAN were comparable on 15 factors. For availability nine purchasers reported that U.S. UAN was superior, seven reported that U.S.-produced and Trinidadian UAN were comparable, and four reported that domestic UAN was inferior. For geographic proximity, nine purchasers reported that U.S. UAN was superior, six reported that U.S.-produced and Trinidadian UAN were comparable, and five reported that domestic UAN was inferior.

Most purchasers reported UAN from Russia and Trinidad and Tobago were comparable for all factors.

Most purchasers reported that U.S. and nonsubject UAN were comparable for 13 factors. For availability, 5 purchasers reported that domestic UAN was superior, 4 reported it was comparable, and 2 reported it was inferior compared to UAN from nonsubject sources. For delivery time, 6 purchasers reported U.S. UAN was superior compared to product from nonsubject sources, 4 reported it was comparable, and 1 reported it was inferior. For geographic proximity, 5 firms reported U.S. product was superior, 4 reported they were comparable, and 2 reported U.S. product was inferior.

Most purchasers reported that Russian product was comparable with product from nonsubject sources on all factors. Most purchasers comparing UAN from Trinidad and Tobago with that from nonsubject countries reported that the products were comparable for 16 factors; regarding availability, four purchasers reported UAN from Trinidad and Tobago with that from nonsubject countries five reported that product UAN from both countries was comparable and one reported UAN from Trinidad and Tobago was inferior.

Table II-11
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	US v. Russia	7	10	5
Delivery terms	US v. Russia	5	14	3
Delivery time	US v. Russia	6	12	3
Discounts offered	US v. Russia	3	15	3
Geographic proximity	US v. Russia	11	7	4
Minimum quantity requirements	US v. Russia	7	10	5
N-concentration levels 28% and 30%	US v. Russia	2	18	0
Packaging	US v. Russia	0	21	0
Payment terms	US v. Russia	4	14	4
Price	US v. Russia	2	15	5
Product consistency	US v. Russia	1	21	0
Product range	US v. Russia	1	20	0
Quality meets industry standards	US v. Russia	1	21	0
Quality exceeds industry standards	US v. Russia	1	21	0
Reliability of supply	US v. Russia	5	11	6
Technical support/service	US v. Russia	6	15	0
U.S. transportation costs	US v. Russia	5	11	5

Table continued.

Table II-11 Continued
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	US v. Trinidad and Tobago	9	7	4
Delivery terms	US v. Trinidad and Tobago	5	12	3
Delivery time	US v. Trinidad and Tobago	5	12	3
Discounts offered	US v. Trinidad and Tobago	1	16	3
Geographic proximity	US v. Trinidad and Tobago	9	6	5
Minimum quantity requirements	US v. Trinidad and Tobago	4	12	4
N-concentration levels 28% and 30%	US v. Trinidad and Tobago	1	16	0
Packaging	US v. Trinidad and Tobago	0	19	0
Payment terms	US v. Trinidad and Tobago	1	16	3
Price	US v. Trinidad and Tobago	0	16	4
Product consistency	US v. Trinidad and Tobago	1	18	0
Product range	US v. Trinidad and Tobago	1	16	0
Quality meets industry standards	US v. Trinidad and Tobago	0	20	0
Quality exceeds industry standards	US v. Trinidad and Tobago	1	18	0
Reliability of supply	US v. Trinidad and Tobago	6	11	3
Technical support/service	US v. Trinidad and Tobago	4	15	0
U.S. transportation costs	US v. Trinidad and Tobago	4	11	4

Table continued.

Table II-11 Continued
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	Russia v. Trinidad and Tobago	1	11	2
Delivery terms	Russia v. Trinidad and Tobago	0	12	1
Delivery time	Russia v. Trinidad and Tobago	0	11	3
Discounts offered	Russia v. Trinidad and Tobago	0	14	0
Geographic proximity	Russia v. Trinidad and Tobago	0	9	5
Minimum quantity requirements	Russia v. Trinidad and Tobago	0	12	2
N-concentration levels 28% and 30%	Russia v. Trinidad and Tobago	0	13	0
Packaging	Russia v. Trinidad and Tobago	0	14	0
Payment terms	Russia v. Trinidad and Tobago	0	13	1
Price	Russia v. Trinidad and Tobago	1	13	0
Product consistency	Russia v. Trinidad and Tobago	0	14	0
Product range	Russia v. Trinidad and Tobago	0	14	0
Quality meets industry standards	Russia v. Trinidad and Tobago	0	14	0
Quality exceeds industry standards	Russia v. Trinidad and Tobago	0	14	0
Reliability of supply	Russia v. Trinidad and Tobago	2	10	2
Technical support/service	Russia v. Trinidad and Tobago	0	13	1
U.S. transportation costs	Russia v. Trinidad and Tobago	0	13	1

Table continued.

Table II-11 Continued
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	US v. Nonsubject	5	4	2
Delivery terms	US v. Nonsubject	4	7	0
Delivery time	US v. Nonsubject	6	4	1
Discounts offered	US v. Nonsubject	2	9	0
Geographic proximity	US v. Nonsubject	5	4	2
Minimum quantity requirements	US v. Nonsubject	3	7	1
N-concentration levels 28% and 30%	US v. Nonsubject	2	8	0
Packaging	US v. Nonsubject	1	9	0
Payment terms	US v. Nonsubject	2	7	1
Price	US v. Nonsubject	1	10	0
Product consistency	US v. Nonsubject	2	9	0
Product range	US v. Nonsubject	1	10	0
Quality meets industry standards	US v. Nonsubject	1	10	0
Quality exceeds industry standards	US v. Nonsubject	1	10	0
Reliability of supply	US v. Nonsubject	4	5	2
Technical support/service	US v. Nonsubject	2	7	1
U.S. transportation costs	US v. Nonsubject	3	6	1

Table continued.

Table II-11 Continued
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	Russia v. Nonsubject	2	7	1
Delivery terms	Russia v. Nonsubject	0	10	0
Delivery time	Russia v. Nonsubject	0	9	1
Discounts offered	Russia v. Nonsubject	1	9	0
Geographic proximity	Russia v. Nonsubject	0	9	1
Minimum quantity requirements	Russia v. Nonsubject	0	9	1
N-concentration levels 28% and 30%	Russia v. Nonsubject	0	8	0
Packaging	Russia v. Nonsubject	0	9	0
Payment terms	Russia v. Nonsubject	1	9	0
Price	Russia v. Nonsubject	2	8	0
Product consistency	Russia v. Nonsubject	0	10	0
Product range	Russia v. Nonsubject	0	10	0
Quality meets industry standards	Russia v. Nonsubject	0	10	0
Quality exceeds industry standards	Russia v. Nonsubject	0	10	0
Reliability of supply	Russia v. Nonsubject	1	9	0
Technical support/service	Russia v. Nonsubject	0	10	0
U.S. transportation costs	Russia v. Nonsubject	1	9	0

Table continued.

Table II-11 Continued
UAN: Count of purchasers' responses comparing U.S.-produced and imported product, by factor and country pair

Factor	Country pair	Superior	Comparable	Inferior
Availability	Trinidad and Tobago v Nonsubject	4	5	1
Delivery terms	Trinidad and Tobago v Nonsubject	3	7	0
Delivery time	Trinidad and Tobago v Nonsubject	2	8	0
Discounts offered	Trinidad and Tobago v Nonsubject	2	8	0
Geographic proximity	Trinidad and Tobago v Nonsubject	2	7	1
Minimum quantity requirements	Trinidad and Tobago v Nonsubject	2	8	1
N-concentration levels 28% and 30%	Trinidad and Tobago v Nonsubject	0	9	0
Packaging	Trinidad and Tobago v Nonsubject	0	10	0
Payment terms	Trinidad and Tobago v Nonsubject	0	10	0
Price	Trinidad and Tobago v Nonsubject	3	7	0
Product consistency	Trinidad and Tobago v Nonsubject	0	9	0
Product range	Trinidad and Tobago v Nonsubject	0	10	0
Quality meets industry standards	Trinidad and Tobago v Nonsubject	0	10	0
Quality exceeds industry standards	Trinidad and Tobago v Nonsubject	0	10	0
Reliability of supply	Trinidad and Tobago v Nonsubject	2	8	0
Technical support/service	Trinidad and Tobago v Nonsubject	2	8	0
U.S. transportation costs	Trinidad and Tobago v Nonsubject	3	7	0

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

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.

Comparison of U.S.-produced and imported UAN

In order to determine whether U.S.-produced UAN can generally be used in the same applications as imports from Russia and Trinidad and Tobago, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in tables II-12 to II-14, most producers, importers, and purchasers reported that UAN produced in the United States and in other countries was always interchangeable. Only one firm provided details, it had reported that product from all sources was always interchangeable, however, this was the case only if availability and reliability of delivery were assumed and these were a challenge to U.S. producers on the East and West Coasts.

Table II-12
UAN: Count of U.S. producers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	6	2	0	0
U.S. vs. Trinidad and Tobago	6	2	0	0
Russia vs. Trinidad and Tobago	4	1	0	0
U.S. vs. Other	5	2	0	0
Russia vs. Other	4	1	0	0
Trinidad and Tobago vs. Other	4	1	0	0

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

Table II-13
UAN: Count of importers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	9	1	0	0
U.S. vs. Trinidad and Tobago	8	1	0	0
Russia vs. Trinidad and Tobago	8	1	0	0
U.S. vs. Other	9	1	0	0
Russia vs. Other	8	1	0	0
Trinidad and Tobago vs. Other	9	1	0	0

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

Table II-14
UAN: Count of purchasers reporting the interchangeability between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	23	2	1	0
U.S. vs. Trinidad and Tobago	22	4	0	0
Russia vs. Trinidad and Tobago	20	2	1	0
U.S. vs. Other	18	3	0	0
Russia vs. Other	17	1	1	0
Trinidad and Tobago vs. Other	17	1	1	0

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 UAN from the United States, subject, or nonsubject countries. As seen in tables II-15 to II-17, most producers reported that there were never significant differences other than price between UAN produced in the United States and in other countries. Most importers, in contrast, reported that there were always or frequently significant differences other than price between UAN produced in the United States and in other countries. Purchaser responses were more varied although never is among the most common answer for each country pair.

The most common purchaser responses for existence of significant factors other than price for U.S. vs. Russian UAN were always and never (7 each), the most common responses for U.S. vs Trinidadian UAN was never (7) followed by frequently and sometimes (6 each), while the most common response for Russian vs. Trinidadian UAN was never (8) followed by frequently (5). Purchasers comparing UAN from other sources with U.S. Russian and Trinidadian UAN most common responses were frequently and never (5 each for all pairs). Most importers and purchasers that reported differences other than price agreed that there were no differences in the UAN produced in different countries. The differences were reported in availability/reliability of supply particularly in coastal regions, transportation networks/costs,[74] and locations served.

[74] Six purchasers provided additional information about transportation networks and transportation costs in their responses about differences other than price (table F-3). Two importers provided additional responses on logistics. ***.

Table II-15
UAN: Count of U.S. producers reporting the significance of differences other than price between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	0	0	2	6
U.S. vs. Trinidad and Tobago	0	0	2	6
Russia vs. Trinidad and Tobago	0	0	1	5
U.S. vs. Other	0	0	2	5
Russia vs. Other	0	0	1	5
Trinidad and Tobago vs. Other	0	0	1	5

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

Table II-16
UAN: Count of importers reporting the significance of differences between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	2	4	2	2
U.S. vs. Trinidad and Tobago	1	4	1	2
Russia vs. Trinidad and Tobago	1	3	1	2
U.S. vs. Other	1	3	1	2
Russia vs. Other	1	3	1	2
Trinidad and Tobago vs. Other	1	3	2	2

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

Table II-17
UAN: Count of purchasers reporting the significance of differences between product produced in the United States and in other countries, by country pair

Country pair	Always	Frequently	Sometimes	Never
U.S. vs. Russia	7	5	5	7
U.S. vs. Trinidad and Tobago	4	6	6	7
Russia vs. Trinidad and Tobago	4	5	3	8
U.S. vs. Other	3	5	4	5
Russia vs. Other	3	5	3	5
Trinidad and Tobago vs. Other	3	5	3	5

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 none did.

U.S. supply elasticity

The domestic supply elasticity for UAN measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of UAN. 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 UAN. Analysis of these factors above indicates that the U.S. industry has the ability to somewhat increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 6 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for UAN measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of UAN. 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 UAN in the production of any downstream products. Based on the available information, the aggregate demand for UAN is likely to be moderately inelastic; a range of -0.5 to -1.0 is suggested. Elasticity of demand may depend on the type of crop planted and where in the United States the crop is grown.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[75] Product differentiation, in turn, depends upon factors such as quality (e.g., chemistry, etc.) and conditions of sale (e.g., availability/timely delivery, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced UAN and imported UAN is likely to be in the range of 4 to 6 in most areas. However, substitution on the coasts may be lower because transportation constraints may limit the availability of U.S.-produced UAN.

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

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

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in Part I of this report and information on the volume and pricing of imports of the subject merchandise is presented in Part IV and Part V. Information on the other factors specified is presented in this section and/or Part VI and (except as noted) is based on the questionnaire responses of eight firms that accounted for the vast majority of U.S. production of UAN during 2021.

U.S. producers

The Commission issued a U.S. producer questionnaire to eight firms based on information contained in the petitions, and all eight firms provided usable data on their operations: (1) CF Industries, LLC ("CF Industries"); (2) CVR Partners, LP ("CVR Partners"); (3) Dyno Nobel Inc. ("Dyno Nobel"); (4) Iowa Fertilizer Company LLC ("Iowa Fertilizer"); (5) Koch Fertilizer Enid, LLC, Koch Fertilizer Beatrice, LLC, Koch Fertilizer Ft. Dodge, LLC, Koch Fertilizer Dodge City, LLC ("Koch Fertilizer"); (6) LSB Industries, Inc. ("LSB Industries"); (7) PCS Nitrogen Fertilizer L.P./PCS Nitrogen Ohio L.P./Agrium U.S. Inc./PCS Sales (USA), Inc. ("PCS/Agrium"); and (8) TradeMark Nitrogen Corporation ("TradeMark Nitrogen"). Staff believes that these responses represent the vast majority of U.S. production of UAN.

Table III-1 lists U.S. producers of UAN, their production locations, positions on the petition, and shares of total production in 2021. *** accounted for slightly more than half of total U.S. UAN production in 2021, followed by U.S. producers ***, which collectively accounted for *** percent of U.S. UAN production in 2021.

Table III-1
UAN: U.S. producers, their positions on the petition, production locations, and shares of reported production, 2021

Firm	Position on petition	Production location(s)	Share of production
CF Industries	Petitioner	Deerfield, IL Woodward, OK Donaldsonville, LA Port Neal, IA Yazoo City, MS Verdigris, OK	***
CVR Partners	***	Coffeyville, KS East Dubuque, IL	***
Dyno Nobel	***	Cheyenne, WY Deer Island, OR	***
Iowa Fertilizer	***	Wever, IA	***
Koch Fertilizer	***	Enid, OK Beatrice, NE Fort Dodge, IA Dodge City, KS	***
LSB Industries	***	Cherokee, AL Pryor, OK	***
PCS/Agrium	***	Geismar, LA Augusta, GA Lima, OH Kennewick, WA	***
TradeMark Nitrogen	***	Tampa, FL	***
All firms	Various	Various	100.0

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

Note: ***. ***'s U.S. producer questionnaire response, I-4.

Table III-2 presents information on U.S. producers' ownership, related and/or affiliated firms. Six of the eight U.S. producers reported ownership information. *** reported being related to ***. Six U.S. producers reported related producers: *** reported having a related producer in ***; *** reported having a related producer in ***; *** reported having a related producer in ***; *** reported having a related producer in ***; *** reported that ***; and *** reported having a related producer in ***. As indicated in table III-2, *** U.S. producers are related to subject foreign producers and *** U.S. producer (***) reported being related to a U.S. importer of the subject merchandise. In addition, as discussed in greater detail below, one U.S. producer (***) directly imports the subject merchandise.

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

Reporting firm	Relationship type and related firm	Details of relationship
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

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

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2019. *** reported an expansion ***. Four U.S. producers (***) reported prolonged shutdowns or curtailments and one U.S. producer (***) reported a revised labor agreement. U.S. producer (***) declared a force majeure event *** due to Hurricane Ida. Finally, U.S. producer *** reported that ***.

Table III-3
UAN: U.S. producers' reported changes in operations, since January 1, 2019

Item	Firm name and narrative response on changes in operations
Expansions	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Prolonged shutdowns or curtailments	***
Revised labor agreements	***
Force majeure	***
Other	***

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

On October 8, 2019, the European Union ("EU") issued final antidumping duties on UAN from Russia, Trinidad and Tobago, and the United States.[1] Firms were asked about the impact of the EU's antidumping duties on U.S. operations.[2] With respect to the EU's antidumping duty on UAN from Russia, *** U.S. producers reported an increase in U.S. imports from Russia. Similarly, with respect to the EU's antidumping duty on UAN from Trinidad and Tobago, *** U.S. producers reported an increase in U.S. imports from Trinidad and Tobago. With respect to the EU's antidumping duty on UAN from the United States, *** U.S. producers reported a decrease in U.S. exports to the EU market.

Additionally, firms were asked about the impact of the COVID-19 pandemic on their operations.[3] *** reported that the COVID-19 pandemic ***. As a result of this, *** further reported that ***. *** reported *** and *** reported that ***.

[1] European Commission, "Commission Implementing Regulation (EU) 2019/1688 of 8 October 2019 imposing a definitive anti-dumping duty and definitively collecting the provisional duty imposed on imports of mixtures of urea and ammonium nitrate originating in Russia, Trinidad and Tobago and the United States of America," https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1688, retrieved July 2, 2022.

[2] See tables G-1 and G-2 in appendix G for full narrative responses from U.S. producers regarding the impact of the EU's antidumping duties.

[3] See table G-5 in appendix G for full narrative responses from U.S. producers regarding the impact of the COVID-19 pandemic.

U.S. production, capacity, and capacity utilization

Table III-4 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. Capacity increased 0.8 percent during 2019-20 and further increased 0.2 percent during 2020-21, ending 1.1 percent higher in 2021 than in 2019. *** of the eight U.S. producers reported *** capacity between 2019 and 2021, while the *** U.S. producers (***) reported higher capacity in 2021 than in 2019. *** U.S. producers reported a reduction in capacity between 2019 and 2021. CF Industries alone accounts for approximately half of the domestic industry's production capacity.[4]

U.S. producers' production fluctuated but decreased by 2.6 percent during 2019-21, increasing by 1.8 percent from 2019 to 2020 but then decreasing by 4.4 percent from 2020 to 2021. *** was the largest producer of UAN during the period for which data were collected, accounting for the following shares of total U.S. production: *** percent in 2019, *** percent in 2020, and *** percent in 2021. While *** was the largest producer of UAN during 2019-21, the overall decrease in total U.S. production was driven by ***. ***'s production fell by *** short tons gross weight (*** percent) between 2019 and 2021, while ***'s production fell by *** short tons gross weight (*** percent).

Capacity utilization increased from 80.0 percent in 2019 to 80.8 percent in 2020 but then decreased to 77.1 percent in 2021, ending 2.9 percentage points lower in 2021 than in 2019.

[4] Hearing transcript, p. 41 (Bilby).

Table III-4
UAN: Firm-by-firm capacity, by period

Capacity

Capacity in short tons gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	15,936,181	16,065,941	16,105,941

Table continued.

Table III-4 Continued
UAN: Firm-by-firm production, by period

Production

Production in short tons gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	12,748,767	12,981,527	12,413,965

Table continued.

Table III-4 Continued
UAN: Firm-by-firm capacity utilization, by period

Capacity utilization

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	80.0	80.8	77.1

Note: Capacity utilization ratio represents the ratio of the U.S. producer's production to its production capacity.

Table continued.

Table III-4 Continued
UAN: Firm-by-firm share of production, by period

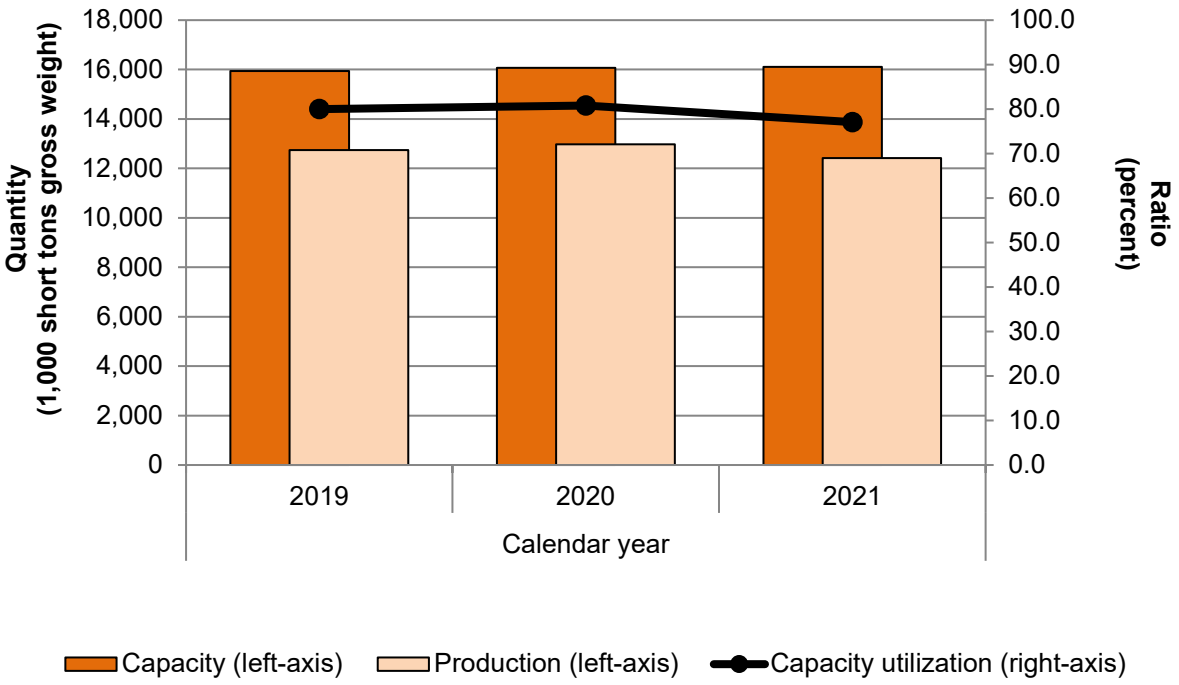
Share of production

Share in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	100.0	100.0	100.0

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

Figure III-1
UAN: U.S. producers' production, capacity, and capacity utilization, by period



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

Alternative products

As shown in table III-5, UAN accounted for the vast majority (*** percent) of U.S. producers' overall production on the same equipment used to produce UAN. Two firms reported producing other products on the same equipment used to produce UAN. *** reported the production of acid, ammonia, urea, and diesel exhaust fluid (DEF) and *** reported the production of urea solutions.

Table III-5
UAN: U.S. producers' overall capacity and production on the same equipment as subject production, by period

Quantity in short tons gross weight; Ratio and shares in percent

Item	Measure	2019	2020	2021
Overall capacity	Quantity	***	***	***
UAN production	Quantity	12,748,767	12,981,527	12,413,965
Other production	Quantity	***	***	***
Total production	Quantity	***	***	***
Overall capacity utilization	Ratio	***	***	***
UAN production	Share	***	***	***
Other production	Share	***	***	***
Total production	Share	***	***	***

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

*** of the eight U.S. producers reported that they internally produce urea and *** U.S. producers reported that they internally produce ammonium nitrate, products that are both upstream inputs in the production of UAN and are themselves fertilizer products.[5]

Table III-6 shows the amount of U.S. producers' internally produced urea that was used in the production of UAN, that was used in the production of other products, or that was sold as urea. During 2019-21, between *** and *** percent of U.S. producers' internally produced urea was used in the production of UAN,[6] between *** and *** percent was used in the production of other products, and between *** and *** percent was sold as urea. *** of the eight U.S. producers reported that they had used internally produced urea in the production of other products, including: diesel exhaust fluid, feed grade urea, granular urea, liquid urea, prill urea, and SuperU.[7]

Table III-7 shows the amount of U.S. producers' internally produced ammonium nitrate that was used in the production of UAN, that was used in the production of other products, or that was sold as ammonium nitrate. During the period for which data were collected, between *** and *** percent of U.S. producers' internally produced ammonium nitrate was used in the production of UAN, between *** and *** percent was used in the production of other products, and between *** and *** percent was sold as ammonium nitrate. *** of the

[5] U.S. producer *** internally produces ammonium nitrate but not urea.

[6] The share of U.S. producers' internally produced urea that was used in the production of UAN decreased from *** percent in 2019 to *** percent in 2020 then increased to *** percent in 2021.

[7] SuperU is a proprietary fertilizer product from Koch Agronomic Services that "contains the highest concentration of nitrogen available (46%) in a urea-based granule. "SUPERU® Premium Fertilizer," Koch Agronomic Services, https://kochagronomicservices.com/solutions/nutrient-protection/superu/, retrieved May 13, 2022.

eight U.S. producers reported that they had used internally produced ammonium nitrate in the production of other products, including: ammonium nitrate fertilizer, ammonium nitrate prill, ammonium nitrate solutions, industrial grade ammonium nitrate, and ammonium nitrate containing explosive emulsions for the explosives industry.

Table III-6
Urea: U.S. producers' production, by end use and period

Quantity in short tons gross weight; Shares in percent

Item	Measure	2019	2020	2021
Used for UAN production	Quantity	3,736,938	3,786,789	3,713,256
Used for other production	Quantity	***	***	***
Sold as urea	Quantity	***	***	***
Total urea production	Quantity	***	***	***
Used for UAN production	Share	***	***	***
Used for other production	Share	***	***	***
Sold as urea	Share	***	***	***
Total urea production	Share	100.0	100.0	100.0

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

Table III-7
Ammonium nitrate: U.S. producers' production, by end use and period

Quantity in short tons gross weight; Shares in percent

Item	Measure	2019	2020	2021
Used for UAN production	Quantity	2,721,527	2,853,975	2,545,820
Used for other production	Quantity	***	***	***
Sold as ammonium nitrate	Quantity	***	***	***
Total ammonium nitrate production	Quantity	***	***	***
Used for UAN production	Share	***	***	***
Used for other production	Share	***	***	***
Sold as ammonium nitrate	Share	***	***	***
Total ammonium nitrate production	Share	100.0	100.0	100.0

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

Table III-8 shows U.S. producers' production of urea, ammonium nitrate, and UAN during 2021, as well as the shares that each firm used of each internally produced input in the production of UAN. Collectively, *** percent of U.S. producers' internally produced urea and *** percent of U.S. producers' internally produced ammonium nitrate was used in the production of UAN.

Table III-8
UAN: U.S. producers' production of UAN and its upstream inputs, by firm, 2021

Quantity in short tons gross weight; Shares in percent

Firm	Urea production	Urea share used for UAN	Ammonium nitrate production	Ammonium nitrate share used for UAN	UAN production
CF Industries	***	***	***	***	***
CVR Partners	***	***	***	***	***
Dyno Nobel	***	***	***	***	***
Iowa Fertilizer	***	***	***	***	***
Koch Fertilizer	***	***	***	***	***
LSB Industries	***	***	***	***	***
PCS/Agrium	***	***	***	***	***
TradeMark Nitrogen	***	***	***	***	***
All firms	***	***	***	***	12,413,965

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

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

Table III-9 presents U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. producers' U.S. shipments by quantity increased 7.0 percent from 2019 to 2020 then decreased 6.7 percent from 2020 to 2021, ending 0.2 percent lower in 2021 than in 2019. U.S. shipments by value decreased 16.3 percent during 2019-20 then increased 71.4 percent during 2020-21, ending 43.4 percent higher in 2021 than in 2019. The unit value of U.S. producers' U.S. shipments decreased from $181 in 2019 to $141 in 2020 then increased to $260 in 2021, increasing by 43.6 percent during 2019-21.

*** were the only U.S. producers to report export shipments during the period for which data were collected. *** export shipments decreased *** percent by quantity during 2019-21, while the value of its export shipments fluctuated but increased *** percent over the same period. *** reported its principal export markets as ***. ***'s export shipments of UAN increased *** percent by quantity from 2019 to 2020 then decreased *** percent from 2020 to 2021, ending *** percent lower in 2021 than in 2019. The value of ***'s export shipments of UAN fluctuated but decreased *** percent during 2019-21. *** reported that its principal export markets are ***. Collectively, U.S. producers' export shipments decreased *** percent by quantity between 2019 and 2021 and fluctuated but increased *** percent by value. The unit value per short ton

gross weight of U.S. producers' export shipments decreased from $*** in 2019 to $*** in 2020 then increased to $*** in 2021, ending *** percent higher in 2021 than in 2019.

U.S. producers' U.S. shipments accounted for between *** and *** percent of total shipments by quantity during the period for which data were collected, while U.S. producers' export shipments accounted for between *** and *** percent of total shipments. U.S. producers' U.S. shipments accounted for between *** and *** percent of total shipments by value from 2019 to 2021, while U.S. producers' export shipments accounted for between *** and *** percent.

Table III-9
UAN: U.S. producers' total shipments, by destination and period

Quantity in short tons gross weight; Value in 1,000 dollars; Unit value in dollars per short ton gross weight; Shares in percent

Item	Measure	2019	2020	2021
U.S. shipments	Quantity	11,621,493	12,439,564	11,603,424
Export shipments	Quantity	***	***	***
Total shipments	Quantity	***	***	***
U.S. shipments	Value	2,101,959	1,758,572	3,013,382
Export shipments	Value	***	***	***
Total shipments	Value	***	***	***
U.S. shipments	Unit value	181	141	260
Export shipments	Unit value	***	***	***
Total shipments	Unit value	***	***	***
U.S. shipments	Share of quantity	***	***	***
Export shipments	Share of quantity	***	***	***
Total shipments	Share of quantity	***	***	***
U.S. shipments	Share of value	***	***	***
Export shipments	Share of value	***	***	***
Total shipments	Share of value	***	***	***

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

Table III-10 and figure III-2 present monthly U.S. exports of UAN between January 2019 and December 2021. After the imposition of the EU's provisional antidumping duty on UAN from the United States in April 2019 and subsequent final antidumping duty in October 2019,[8] U.S. exports to that market have been largely nonexistent.

[8] European Commission, "Commission Implementing Regulation (EU) 2019/1688 of 8 October 2019 imposing a definitive anti-dumping duty and definitively collecting the provisional duty imposed on imports of mixtures of urea and ammonium nitrate originating in Russia, Trinidad and Tobago and the United States of America," https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1688, retrieved July 2, 2022.

Table III-10
UAN: U.S. domestic exports, by month

Quantity in short tons gross weight

Year	Month	EU27	United Kingdom	All other markets	All markets
2019	January	31,968	10	4,926	36,904
2019	February	11	---	13,903	13,914
2019	March	40,789	---	38,165	78,954
2019	April	44,095	---	44,865	88,960
2019	May	---	---	41,869	41,869
2019	June	---	---	188,782	188,782
2019	July	44,101	---	104,268	148,369
2019	August	---	---	123,306	123,306
2019	September	---	---	53,254	53,254
2019	October	44,095	---	96,760	140,854
2019	November	39,695	---	96,233	135,928
2019	December	---	---	15,192	15,192
2020	January	---	---	6,001	6,001
2020	February	---	1	48,929	48,930
2020	March	7	---	27,970	27,977
2020	April	---	---	16,979	16,979
2020	May	---	---	98,921	98,921
2020	June	---	---	176,314	176,314
2020	July	---	---	83,404	83,404
2020	August	---	---	109,648	109,648
2020	September	---	---	137,764	137,764
2020	October	---	---	19,112	19,112
2020	November	---	---	96,394	96,394
2020	December	---	---	32,364	32,364

Table continued.

Table III-10 Continued
UAN: U.S. domestic exports, by month

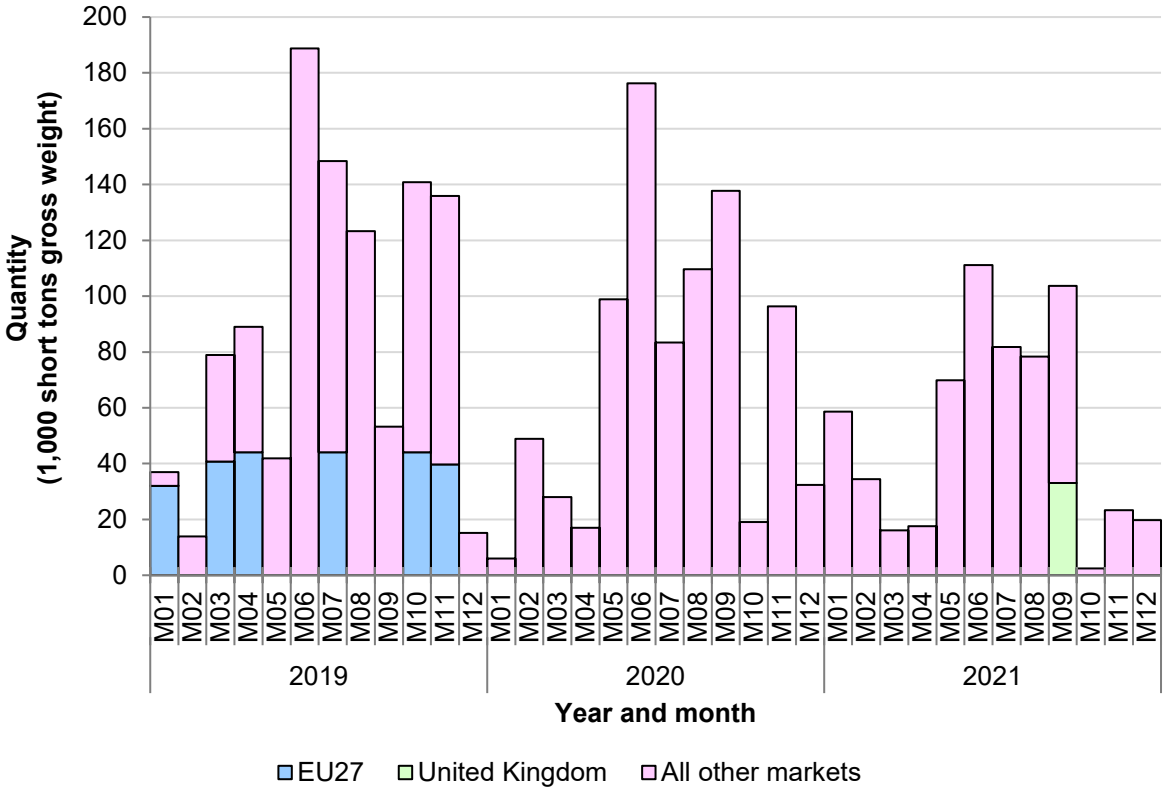
Quantity in short tons gross weight

Year	Month	EU27	United Kingdom	All other markets	All markets
2021	January	---	---	58,597	58,597
2021	February	6	8	34,384	34,398
2021	March	---	1	16,040	16,041
2021	April	10	---	17,510	17,520
2021	May	---	10	69,842	69,852
2021	June	---	---	111,173	111,173
2021	July	---	---	81,821	81,821
2021	August	6	---	78,347	78,352
2021	September	---	33,101	70,617	103,719
2021	October	---	---	2,425	2,425
2021	November	---	---	23,279	23,279
2021	December	25	---	19,743	19,769

Source: Compiled from official U.S. export statistics of the U.S. Department of Commerce Census Bureau using schedule B number 3102.80.0000, accessed on March 22, 2022. Exports are based on the domestic exports data series.

Note: Prior to the United Kingdom leaving in February 2021, the EU had 28 member countries. EU27 data shows exports to the EU with exports to the United Kingdom not included in the total. Exports to the United Kingdom are shown separately throughout the periods displayed.

Figure III-2
UAN: U.S. domestic exports, by month



Source: Compiled from official U.S. export statistics of the U.S. Department of Commerce Census Bureau using schedule B number 3102.80.0000, accessed on March 22, 2022. Exports are based on the domestic exports data series.

Note: Prior to the United Kingdom leaving in February 2021, the EU had 28 member countries. EU27 data shows exports to the EU with exports to the United Kingdom not included in the total. Exports to the United Kingdom are shown separately throughout the periods displayed.

Table III-11 presents U.S. producers' U.S. shipments by type during 2019-21. Commercial U.S. shipments accounted for the large majority (between *** and *** percent by quantity and between *** and *** percent by value) of U.S. producers' total U.S. shipments during the period for which data were collected. The share of U.S. producers' transfers to related firms to total U.S. shipments declined by both quantity and value during 2019-21. Transfers to related firms comprised between *** and *** percent of U.S. producers' total U.S. shipments by quantity and between *** and *** percent by value. U.S. producers *** reported transfers of UAN to related firms. *** reported all of its U.S. shipments of UAN as transfers to related firm ***. *** reported transfers to affiliated firm ***, which accounted for approximately *** of its total U.S. shipments by quantity during 2019-21. U.S. producer *** reported internally

consuming *** of UAN.

Table III-11
UAN: U.S. producers' U.S. shipments, by type and period

Quantity in short tons gross weight; Value in 1,000 dollars; Unit value in dollars per short ton gross weight; Shares in percent

Item	Measure	2019	2020	2021
Commercial U.S. shipments	Quantity	***	***	***
Internal consumption	Quantity	***	***	***
Transfers to related firms	Quantity	***	***	***
U.S. shipments	Quantity	11,621,493	12,439,564	11,603,424
Commercial U.S. shipments	Value	***	***	***
Internal consumption	Value	***	***	***
Transfers to related firms	Value	***	***	***
U.S. shipments	Value	2,101,959	1,758,572	3,013,382
Commercial U.S. shipments	Unit value	***	***	***
Internal consumption	Unit value	***	***	***
Transfers to related firms	Unit value	***	***	***
U.S. shipments	Unit value	181	141	260
Commercial U.S. shipments	Share of quantity	***	***	***
Internal consumption	Share of quantity	***	***	***
Transfers to related firms	Share of quantity	***	***	***
U.S. shipments	Share of quantity	100.0	100.0	100.0
Commercial U.S. shipments	Share of value	***	***	***
Internal consumption	Share of value	***	***	***
Transfers to related firms	Share of value	***	***	***
U.S. shipments	Share of value	100.0	100.0	100.0

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

U.S. producers' inventories and storage capacity

Table 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.[9] [10] U.S. producers' end-of-period inventories decreased by *** percent during 2019-20 then increased by *** percent during 2020-21, ending *** percent higher in 2021 than in 2019.[11]

Table III-12
UAN: U.S. producers' end-of-period inventories and their ratio to select items, by period

Quantity in short tons gross weight; Inventory ratios in percent

Item	2019	2020	2021
End-of-period inventory quantity	***	***	***
Inventory ratio to U.S. production	***	***	***
Inventory ratio to U.S. shipments	***	***	***
Inventory ratio to total shipments	***	***	***

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

Table III-13 presents U.S. producers' end-of-period storage capacity, inventories, and storage capacity utilization. U.S. producers' end-of-period storage capacity increased by *** percent during 2019-20 then decreased by *** percent during 2020-21, ending *** percent lower in 2021 than in 2019.[12] U.S. producers' storage capacity utilization decreased from *** percent in 2019 to *** percent in 2020 then increased to *** percent in 2021.

[9] See table D-1 and figure D-1 in appendix D for monthly data on U.S. producers' inventories. Also, see table D-10 and figure D-2 for industrywide storage capacity and inventory data on a quarterly basis.

[10] See table D-2 in appendix D for narrative responses from U.S. producers describing their inventory levels of UAN during 2019-21.

[11] *** of eight U.S. producers reported lower end-of-period inventories in 2021 than in 2019. However, these decreases in inventories were outpaced by *** end-of-period inventories were *** short tons gross weight higher (*** percent) in 2021 than in 2019.

[12] *** of eight U.S. producers reported no changes in their end-of-period storage capacity during 2019-21. Of the *** U.S. producers that reported changes in storage capacity, U.S. producer *** reported an overall decrease of *** short tons gross weight (*** percent) in its end-of-period storage capacity and U.S. producer *** reported an overall decrease of *** short tons gross weight (*** percent).

Table III-13
UAN: U.S. producers' end-of-period storage capacity, inventories, and storage utilization rate, by period

Quantity in short tons gross weight; Storage capacity utilization in percent

Item	2019	2020	2021
Storage capacity	***	***	***
Inventories: U.S. produced	***	***	***
Inventories: Imports	***	***	***
Inventories: Combined	***	***	***
Storage utilization	***	***	***

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

Note: End-of-period storage capacity and inventories represent levels as of December 31 for a given year. Inventories of imports of UAN reflect inventories reported in U.S. importer questionnaire responses by firms that operate as both U.S. producers and U.S. importers or are related to and share storage capacity with U.S. producers. These inventories were reported by the following: ***.

Table III-14 presents U.S. producers' narrative responses describing their storage locations.

Table III-14
UAN: Narratives describing U.S. producers' storage locations

Firm	Narrative explanation
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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

U.S. producers' imports

Tables III-15 and III-16 present U.S. producers' subject imports of UAN and reasons for importing. U.S. producer *** reported U.S. imports from Russia during the period for which data were collected. The ratio of ***'s imports from Russia to its U.S. production ranged between *** and *** percent.

Table III-15
UAN: *'s U.S. production, U.S. imports, and ratio of imports to production, by period**

Quantity in short tons gross weight; Ratio in percent

Item	Measure	2019	2020	2021
U.S. production	Quantity	***	***	***
Imports from Russia	Quantity	***	***	***
Imports from Russia to U.S. production	Ratio	***	***	***

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

Table III-16
UAN: U.S. producers' reasons for importing

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

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

U.S. employment, wages, and productivity

Table III-17 presents U.S. producers' employment-related data. Between 2019 and 2021, production and related workers ("PRWs"), wages paid, hourly wages, and unit labor costs increased by 1.8 percent, 10.8 percent, 9.6 percent, and 13.8 percent, respectively. Total hours worked fluctuated but increased by 1.1 percent during 2019-21, while hours worked per PRW and productivity fluctuated but decreased by 0.7 percent and 3.7 percent, respectively.

Table III-17
UAN: U.S. producers' employment related information, by period

Item	2019	2020	2021
Production and related workers (PRWs) (number)	1,447	1,461	1,473
Total hours worked (1,000 hours)	3,091	3,083	3,124
Hours worked per PRW (hours)	2,136	2,110	2,121
Wages paid ($1,000)	173,061	184,304	191,756
Hourly wages (dollars per hour)	$55.99	$59.78	$61.38
Productivity (short tons gross weight per 1,000 hours)	4,124	4,211	3,974
Unit labor costs (dollars per short tons gross weight)	$13.57	$14.20	$15.45

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 15 firms believed to be importers of UAN, as well as to all U.S. producers of UAN.[1] Usable questionnaire responses were received from 12 companies.[2] [3] Firms responding to the Commission's questionnaire accounted for the following shares of U.S. imports of UAN by source during 2021, based on official Commerce import statistics under HTS statistical reporting number 3102.80.0000—Russia, *** percent; Trinidad and Tobago, *** percent; and all other sources, *** percent. Table IV-1 lists all responding U.S. importers of UAN from Russia, Trinidad and Tobago, and all other sources, their locations, and their shares of U.S. imports, in 2021.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data from third-party sources, may have accounted for more than one percent of total imports under HTS statistical reporting number 3102.80.0000 in 2021.

[2] The following firms submitted usable U.S. importer questionnaire responses: (1) Acron USA; (2) Agrico Canada LP ("Agrico Canada"); (3) EuroChem North America; (4) Gavilon Fertilizer; (5) Helm Fertilizer; (6) J. R. Simplot Company ("J.R. Simplot"); (7) Koch Fertilizer; (8) Nutrien Ag Solutions, Inc. ("Nutrien Ag"); (9) Agrium U.S. Inc. / PCS Sales (USA), Inc. ("PCS/Agrium"); (10) Terra International; (11) The Andersons, Inc. ("The Andersons"); and (12) Yara North America, Inc. ("Yara"). The Commission also received a U.S. importer questionnaire response from ***. Email from ***, May 2, 2022.

[3] Four firms (***) certified that they did not import UAN from any source since January 1, 2019.

Table IV-1
UAN: U.S. importers, their headquarters, and share of imports within each source, 2021

Shares in percent

Firm	Headquarters	Russia	Trinidad and Tobago	Subject sources
Acron USA	Aventura, FL	***	***	***
Agrico Canada	Mississauga, ON	***	***	***
EuroChem North America	Tulsa, OK	***	***	***
Gavilon Fertilizer	Savannah, GA	***	***	***
Helm Fertilizer	Tampa, FL	***	***	***
J.R. Simplot	Boise, ID	***	***	***
Koch Fertilizer	Wichita, KS	***	***	***
Nutrien Ag	Loveland, CO	***	***	***
PCS/Agrium	Deerfield, IL	***	***	***
Terra International	Courtright, ON	***	***	***
The Andersons	Maumee, OH	***	***	***
Yara	Tampa, FL	***	***	***
All firms	Various	100.0	100.0	100.0

Table continued.

Table IV-1 Continued
UAN: U.S. importers, their headquarters, and share of imports within each source, 2021

Shares in percent

Firm	Headquarters	Canada	All other sources	Nonsubject sources	All import sources
Acron USA	Aventura, FL	***	***	***	***
Agrico Canada	Mississauga, ON	***	***	***	***
EuroChem North America	Tulsa, OK	***	***	***	***
Gavilon Fertilizer	Savannah, GA	***	***	***	***
Helm Fertilizer	Tampa, FL	***	***	***	***
J.R. Simplot	Boise, ID	***	***	***	***
Koch Fertilizer	Wichita, KS	***	***	***	***
Nutrien Ag	Loveland, CO	***	***	***	***
PCS/Agrium	Deerfield, IL	***	***	***	***
Terra International	Courtright, ON	***	***	***	***
The Andersons	Maumee, OH	***	***	***	***
Yara	Tampa, FL	***	***	***	***
All firms	Various	100.0	100.0	100.0	100.0

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Firms were asked about the impact of the EU's antidumping duty orders on the U.S. UAN market.[4] A majority of responding U.S. importers reported that after the imposition of these antidumping duty orders there was a general shift in global trade flows of UAN. More specifically, *** U.S. importers reported that following the EU's imposition of antidumping duty orders, U.S. exports of UAN declined. *** U.S. importers indicated that imports of UAN from Russia and Trinidad and Tobago increased in the domestic market. U.S. importer *** further explained this increase in imports led to an inventory overhang that depressed prices during 2020 and the beginning of 2021.

Additionally, firms were asked about the impact of the COVID-19 pandemic on their operations.[5] A majority of responding U.S. importers reported the COVID-19 pandemic had no impact on their operations. U.S. importer *** reported that because of the unstable and changing environment caused by the COVID-19 pandemic, end consumers in farming made purchasing decisions more cautiously than they had previously. U.S. importer *** noted that the COVID-19 pandemic impacted numerous sectors of the economy which in turn caused ripple effects across the fertilizer industry.

U.S. imports

Table IV-2 and figure IV-1 present data for U.S. imports of UAN from Russia, Trinidad and Tobago, and all other sources based on official Commerce import statistics under HTS statistical reporting number 3102.80.0000.[6] The quantity of U.S. imports from all sources decreased by 15.4 percent during 2019-20 and then increased by 3.0 percent during 2020-21, ending 12.8 percent lower in 2021 than in 2019. The value of U.S. imports from all sources decreased by 29.5 percent from 2019 to 2020 and then increased sharply by 86.3 percent from 2020 to 2021, for an overall increase of 31.3 percent during 2019-21. The overall trends in U.S. imports of UAN are largely driven by imports from Russia, which accounted for the largest share of imports from any single source, ranging from 42.3 to 54.0 percent of the quantity of total U.S. imports and 39.2 to 52.8 percent of value.

The quantity of U.S. imports from subject sources decreased by 17.6 percent from 2019 to 2020 and further decreased by 4.4 percent from 2020 to 2021, for an overall decrease of

[4] In 2019, the EU imposed antidumping duty orders on UAN from Russia, Trinidad and Tobago, and the United States. See table G-3 in appendix G for full narrative responses from U.S. importers regarding the impact of the EU's antidumping duty orders.

[5] See table G-6 in appendix G for full narrative responses from U.S. importers regarding the impact of the COVID-19 pandemic.

[6] See appendix H for U.S. import data based on official Commerce import statistics covering 2012 through 2021.

21.3 percent during 2019-21. The value of U.S. imports from subject sources fluctuated, decreasing by 33.0 percent from 2019 to 2020 then increasing by 81.6 percent from 2021, ending 21.7 percent higher in 2021 than in 2019. By quantity, imports from Russia decreased by 30.5 percent during 2019-20 and further decreased by 1.8 percent during 2020-21, decreasing overall by 31.7 percent between 2019 and 2021. In contrast, imports from Russia by value fluctuated during 2019-21, decreasing by 44.0 percent from 2019 to 2020 then increasing by 73.9 percent from 2020 to 2021, ending slightly lower (2.5 percent) in 2021 than in 2019. The quantity of imports from Trinidad and Tobago increased by 5.7 percent during 2019-20 then decreased by 7.6 percent during 2020-21, ending slightly lower (2.3 percent) in 2021 than in 2019. The value of imports from Trinidad and Tobago also fluctuated, decreasing by 12.0 percent from 2019 to 2020 then increasing precipitously by 90.9 percent from 2020 to 2021, increasing overall by 68.1 percent during 2019-21.

Nonsubject sources of U.S. imports of UAN include Algeria, Canada, Egypt, Germany, Lithuania, and the Netherlands, although Canada alone accounted for more than 80.0 percent of total nonsubject imports during 2019-21. The quantity of nonsubject imports fluctuated but increased by 31.0 percent during 2019-21, decreasing by 3.5 percent from 2019 to 2020 then increasing by 35.8 percent from 2020 to 2021. Similarly, the value of nonsubject imports fluctuated but increased by 70.6 percent between 2019 and 2021, decreasing by 15.3 percent during 2019-20 then increasing sharply by 101.5 percent during 2020-21.

Average unit values ("AUVs") for imports from both subject and nonsubject sources fluctuated but increased overall during 2019-21. AUVs for imports from subject sources decreased from $167 in 2019 to $136 in 2020 then increased to $259 in 2021. AUVs for imports from nonsubject sources decreased from $212 in 2019 to $186 in 2020 then increased to $277 in 2021.

Subject imports as a share of total imports decreased by 8.1 percentage points by quantity during 2019-21 and 5.9 percentage points by value. The ratio of subject imports to U.S. production decreased from 20.8 percent in 2019 to 16.8 percent in 2020 and 2021.

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

Quantity in short tons gross weight; Value in 1,000 dollars; Unit value in dollars per short ton gross weight

Source	Measure	2019	2020	2021
Russia	Quantity	1,706,932	1,186,296	1,165,275
Trinidad and Tobago	Quantity	942,579	996,137	920,601
Subject sources	Quantity	2,649,511	2,182,433	2,085,876
Canada	Quantity	452,234	422,437	467,542
All other sources	Quantity	58,131	69,830	200,923
Nonsubject sources	Quantity	510,366	492,267	668,465
All import sources	Quantity	3,159,877	2,674,700	2,754,341
Russia	Value	291,249	163,225	283,924
Trinidad and Tobago	Value	152,310	134,105	256,016
Subject sources	Value	443,559	297,330	539,940
Canada	Value	96,507	79,272	122,922
All other sources	Value	11,860	12,467	61,932
Nonsubject sources	Value	108,367	91,740	184,854
All import sources	Value	551,926	389,069	724,794
Russia	Unit value	171	138	244
Trinidad and Tobago	Unit value	162	135	278
Subject sources	Unit value	167	136	259
Canada	Unit value	213	188	263
All other sources	Unit value	204	179	308
Nonsubject sources	Unit value	212	186	277
All import sources	Unit value	175	145	263

Table continued.

Table IV-2 Continued
UAN: U.S. imports, by source and period

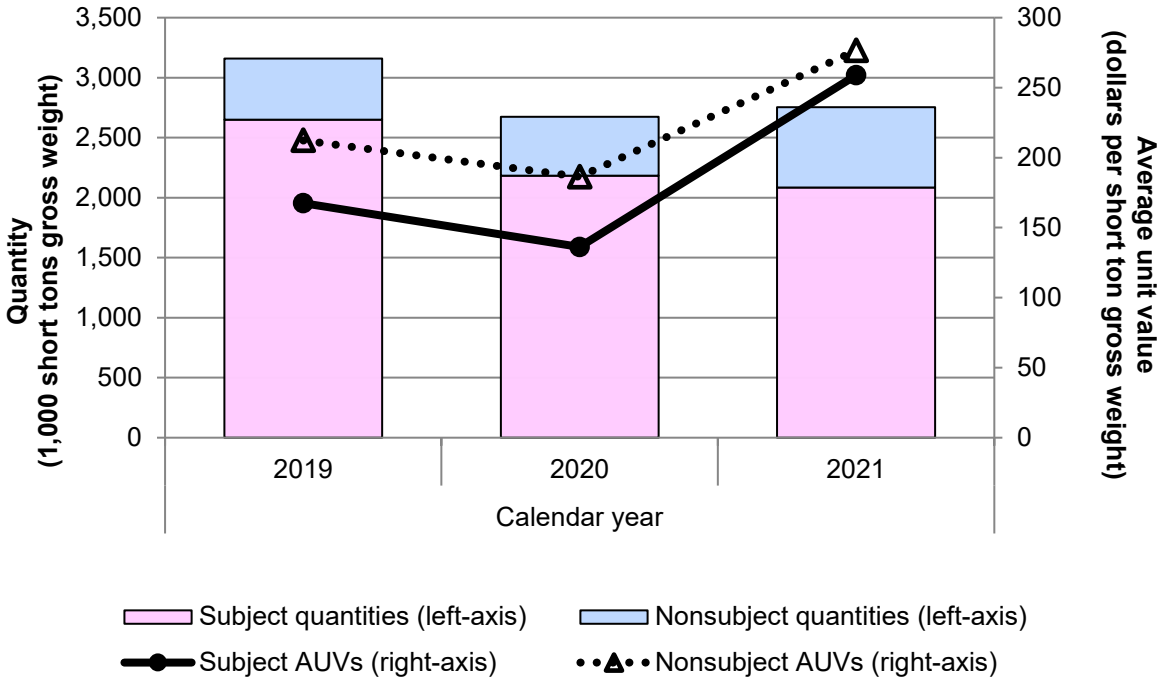
Shares and ratios in percent

Source	Measure	2019	2020	2021
Russia	Share of quantity	54.0	44.4	42.3
Trinidad and Tobago	Share of quantity	29.8	37.2	33.4
Subject sources	Share of quantity	83.8	81.6	75.7
Canada	Share of quantity	14.3	15.8	17.0
All other sources	Share of quantity	1.8	2.6	7.3
Nonsubject sources	Share of quantity	16.2	18.4	24.3
All import sources	Share of quantity	100.0	100.0	100.0
Russia	Share of value	52.8	42.0	39.2
Trinidad and Tobago	Share of value	27.6	34.5	35.3
Subject sources	Share of value	80.4	76.4	74.5
Canada	Share of value	17.5	20.4	17.0
All other sources	Share of value	2.1	3.2	8.5
Nonsubject sources	Share of value	19.6	23.6	25.5
All import sources	Share of value	100.0	100.0	100.0
Russia	Ratio	13.4	9.1	9.4
Trinidad and Tobago	Ratio	7.4	7.7	7.4
Subject sources	Ratio	20.8	16.8	16.8
Canada	Ratio	3.5	3.3	3.8
All other sources	Ratio	0.5	0.5	1.6
Nonsubject sources	Ratio	4.0	3.8	5.4
All import sources	Ratio	24.8	20.6	22.2

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Note: Share of quantity is the share of U.S. imports by quantity; share of value is the share of U.S. imports by value; ratios are U.S. imports to production.

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



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[7] Negligible imports are generally defined in the 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.[8] Table IV-3 presents the individual shares of total U.S. imports by source during June 2020 through May 2021. During this period, U.S. imports from Russia accounted for 39.7 percent of total imports of UAN by quantity and U.S. imports from Trinidad and Tobago accounted for 36.6 percent.

Table IV-3
UAN: U.S. imports in the twelve-month period preceding the filing of the petitions, June 2020 through May 2021

Quantity in short tons gross weight; Shares in percent

Source of imports	Quantity	Share of quantity
Russia	1,023,019	39.7
Trinidad and Tobago	944,762	36.6
Subject sources	1,967,781	76.3
Canada	437,346	17.0
All other sources	174,354	6.8
Nonsubject sources	611,700	23.7
All import sources	2,579,481	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series.

Note: Share of quantity is the share of U.S. imports by quantity.

[7] Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

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

Cumulation considerations

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

Fungibility

Table IV-4 and figure IV-2 present U.S. producers' and U.S. importers' U.S. shipments of UAN by nitrogen concentration in 2021.[9] U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of imports from Russia and Trinidad and Tobago were predominantly of 32 percent nitrogen concentration UAN. In contrast, U.S. importers' U.S. shipments of imports from Canada (the largest source of nonsubject imports) were roughly split between 32 percent and 28 percent nitrogen concentration UAN.

Table IV-4
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and nitrogen concentration, 2021

Quantity in short tons gross weight

Source	32 percent	30 percent	28 percent	Other	All nitrogen concentrations
U.S. producers	***	***	***	***	***
Russia	***	***	***	***	***
Trinidad and Tobago	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
All sources	***	***	***	***	***

Table continued.

[9] See appendix J for additional data breakouts of U.S. producers' and U.S. importers' U.S. shipments of UAN by nitrogen concentration.

Table IV-4 Continued
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and nitrogen concentration, 2021

Share across in percent

Source	32 percent	30 percent	28 percent	Other	All nitrogen concentrations
U.S. producers	***	***	***	***	100.0
Russia	***	***	***	***	100.0
Trinidad and Tobago	***	***	***	***	100.0
Subject sources	***	***	***	***	100.0
Canada	***	***	***	***	100.0
All other sources	***	***	***	***	100.0
Nonsubject sources	***	***	***	***	100.0
All import sources	***	***	***	***	100.0
All sources	***	***	***	***	100.0

Table continued.

Table IV-4 Continued
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and nitrogen concentration, 2021

Share down in percent

Source	32 percent	30 percent	28 percent	Other	All nitrogen concentrations
U.S. producers	***	***	***	***	***
Russia	***	***	***	***	***
Trinidad and Tobago	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
All sources	100.0	100.0	100.0	100.0	100.0

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

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

Figure IV-2
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and nitrogen concentration, 2021

* * * * * * *

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

Table IV-5 and figure IV-3 present U.S. producers' and U.S. importers' U.S. shipments of UAN by region in 2021.[10] [11] U.S. producers' U.S. shipments of UAN were largely concentrated in the Central region, while U.S. importers' U.S. shipments from subject sources were roughly equal across all three regions. U.S. importers' U.S. shipments of UAN from Russia were primarily destined for the Eastern and Western regions, while U.S. importers' U.S. shipments of UAN from Trinidad and Tobago mostly went to the Central and Western regions.

[10] The regions are defined as follows: (1) the Eastern region includes shipments to CT, DC, DE, FL, GA, MA, MD, ME, NC, NH, NJ, NY, RI, PA, PR, SC, VA, VI, VT, and WV; (2) the Central region includes shipments to AL, AR, IA, IL, IN, LA, KS, KY, MI, MN, MS, MO, ND, NE, OH, OK, SD, TN, TX, and WI; and (3) the Western region includes shipments to AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY.

[11] See appendix E for additional data breakouts of U.S. producers' and U.S. importers' U.S. shipments of UAN by region, including value and inland U.S. transportation costs.

Table IV-5
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and region, 2021

Quantity in short tons gross weight

Source	Eastern	Central	Western	All regions
U.S. producers	***	***	***	***
Russia	***	***	***	***
Trinidad and Tobago	***	***	***	***
Subject sources	***	***	***	***
Canada	***	***	***	***
All other sources	***	***	***	***
Nonsubject sources	***	***	***	***
All import sources	***	***	***	***
All sources	***	***	***	***

Table continued.

Table IV-5 Continued
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and region, 2021

Share across in percent

Source	Eastern	Central	Western	All regions
U.S. producers	***	***	***	100.0
Russia	***	***	***	100.0
Trinidad and Tobago	***	***	***	100.0
Subject sources	***	***	***	100.0
Canada	***	***	***	100.0
All other sources	***	***	***	100.0
Nonsubject sources	***	***	***	100.0
All import sources	***	***	***	100.0
All sources	***	***	***	100.0

Table continued.

Table IV-5 Continued
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and region, 2021

Share down in percent

Source	Eastern	Central	Western	All regions
U.S. producers	***	***	***	***
Russia	***	***	***	***
Trinidad and Tobago	***	***	***	***
Subject sources	***	***	***	***
Canada	***	***	***	***
All other sources	***	***	***	***
Nonsubject sources	***	***	***	***
All import sources	***	***	***	***
All sources	100.0	100.0	100.0	100.0

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure IV-3
UAN: U.S. producers' and U.S. importers' U.S. shipments, by source and region, 2021

* * * * * * *

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

Geographical markets

Table IV-6 presents U.S. imports of UAN, by source and border of entry in 2021, based on official Commerce import statistics. U.S. imports of UAN from Russia and nonsubject sources entered through all four borders of entry during 2021, while imports from Trinidad and Tobago entered through all borders of entry except for the North. Consistent with their geographic locations relative to the United States, the majority of U.S. imports from Russia entered through the East and the majority of U.S. imports from Trinidad and Tobago entered through the South. The vast majority of U.S. imports from nonsubject sources (primarily Canada) entered through the North. Subject imports accounted for 99.1 percent, 85.5 percent, and 87.6 percent of total U.S. imports of UAN that entered through the East, South, and West, respectively, while nonsubject imports accounted for 94.1 percent of total imports of UAN that entered through the North.

Table IV-6
UAN: U.S. imports, by source and border of entry, 2021

Quantity in short tons gross weight

Source	East	North	South	West	All borders
Russia	702,100	28,879	194,987	239,310	1,165,275
Trinidad and Tobago	87,089	---	550,941	282,571	920,601
Subject sources	789,189	28,879	745,927	521,880	2,085,876
Canada	6,694	460,793	---	55	467,542
All other sources	817	---	126,252	73,854	200,923
Nonsubject sources	7,511	460,793	126,252	73,909	668,465
All import sources	796,700	489,672	872,180	595,789	2,754,341

Table continued.

Table IV-6 Continued
UAN: U.S. imports, by source and border of entry, 2021

Share across in percent

Source	East	North	South	West	All borders
Russia	60.3	2.5	16.7	20.5	100.0
Trinidad and Tobago	9.5	---	59.8	30.7	100.0
Subject sources	37.8	1.4	35.8	25.0	100.0
Canada	1.4	98.6	---	0.0	100.0
All other sources	0.4	---	62.8	36.8	100.0
Nonsubject sources	1.1	68.9	18.9	11.1	100.0
All import sources	28.9	17.8	31.7	21.6	100.0

Table continued.

Table IV-6 Continued
UAN: U.S. imports, by source and border of entry, 2021

Share down in percent

Source	East	North	South	West	All borders
Russia	88.1	5.9	22.4	40.2	42.3
Trinidad and Tobago	10.9	---	63.2	47.4	33.4
Subject sources	99.1	5.9	85.5	87.6	75.7
Canada	0.8	94.1	---	0.0	17.0
All other sources	0.1	---	14.5	12.4	7.3
Nonsubject sources	0.9	94.1	14.5	12.4	24.3
All import sources	100.0	100.0	100.0	100.0	100.0

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

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

Presence in the market

Table IV-7 and figures IV-4 and IV-5 present monthly data for U.S. imports from subject and nonsubject sources during January 2019 through December 2021. Subject imports from Russia were present in every month between January 2019 through December 2021, while subject imports from Trinidad and Tobago were present in 35 of 36 months.

Table IV-7
UAN: Quantity of U.S. imports, by source and month

Quantity in short tons gross weight

Year	Month	Russia	Trinidad and Tobago	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
2019	January	182,112	68,915	251,027	53,588	5,577	59,164	310,192
2019	February	169,808	85,157	254,965	24,092	12,729	36,822	291,786
2019	March	182,835	155,530	338,364	64,582	4,219	68,801	407,165
2019	April	124,350	65,700	190,049	32,225	6,389	38,614	228,663
2019	May	186,296	133,948	320,245	40,373	2,905	43,278	363,522
2019	June	82,587	44	82,631	36,782	1,245	38,026	120,658
2019	July	131,048	149,317	280,365	46,990	7,185	54,175	334,540
2019	August	50,194	60,100	110,294	48,115	3,783	51,898	162,192
2019	September	125,214	70,625	195,839	29,824	3,789	33,613	229,452
2019	October	205,000	---	205,000	19,696	2,809	22,505	227,505
2019	November	192,607	98,809	291,416	25,773	4,144	29,917	321,333
2019	December	74,882	54,433	129,315	30,193	3,360	33,553	162,869
2020	January	121,636	124,262	245,898	40,323	---	40,323	286,221
2020	February	131,480	106,545	238,025	36,771	5,687	42,458	280,483
2020	March	79,164	73,327	152,490	42,644	---	42,644	195,134
2020	April	115,770	70,566	186,336	43,465	14,968	58,434	244,769
2020	May	189,248	64,069	253,317	45,769	24,242	70,011	323,328
2020	June	52,490	81,482	133,972	42,107	3,622	45,729	179,701
2020	July	117,403	70,579	187,982	13,906	3,907	17,812	205,794
2020	August	95,419	97,622	193,041	3,368	6,662	10,030	203,071
2020	September	93,942	48,862	142,804	35,114	2,665	37,780	180,584
2020	October	94,302	84,413	178,714	33,641	2,713	36,354	215,069
2020	November	43,051	73,868	116,919	43,639	3,544	47,183	164,102
2020	December	52,392	100,543	152,935	41,689	1,820	43,509	196,444

Table continued.

Table IV-7 Continued
UAN: Quantity of U.S. imports, by source and month

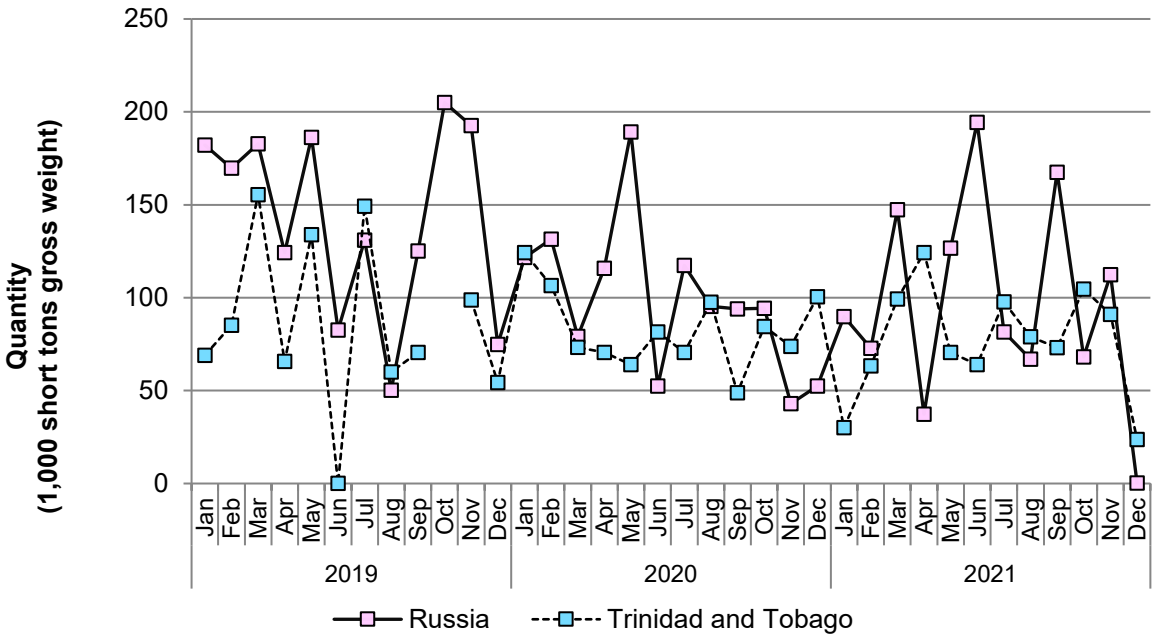
Quantity in short tons gross weight

Year	Month	Russia	Trinidad and Tobago	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
2021	January	89,800	30,093	119,893	50,753	3,347	54,099	173,992
2021	February	72,711	63,355	136,066	37,811	2,535	40,347	176,413
2021	March	147,433	99,248	246,681	45,482	58,685	104,167	350,848
2021	April	37,361	124,235	161,596	40,380	27,418	67,798	229,393
2021	May	126,716	70,463	197,179	49,455	57,436	106,891	304,070
2021	June	194,436	64,046	258,482	46,413	11,119	57,532	316,014
2021	July	81,543	97,696	179,239	28,933	6,871	35,804	215,043
2021	August	66,943	79,062	146,006	33,721	20,726	54,446	200,452
2021	September	167,436	73,101	240,536	25,742	3,875	29,617	270,153
2021	October	68,140	104,646	172,786	27,805	3,310	31,115	203,901
2021	November	112,429	90,956	203,385	45,400	5,602	51,002	254,387
2021	December	327	23,700	24,027	35,647	---	35,647	59,674

Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

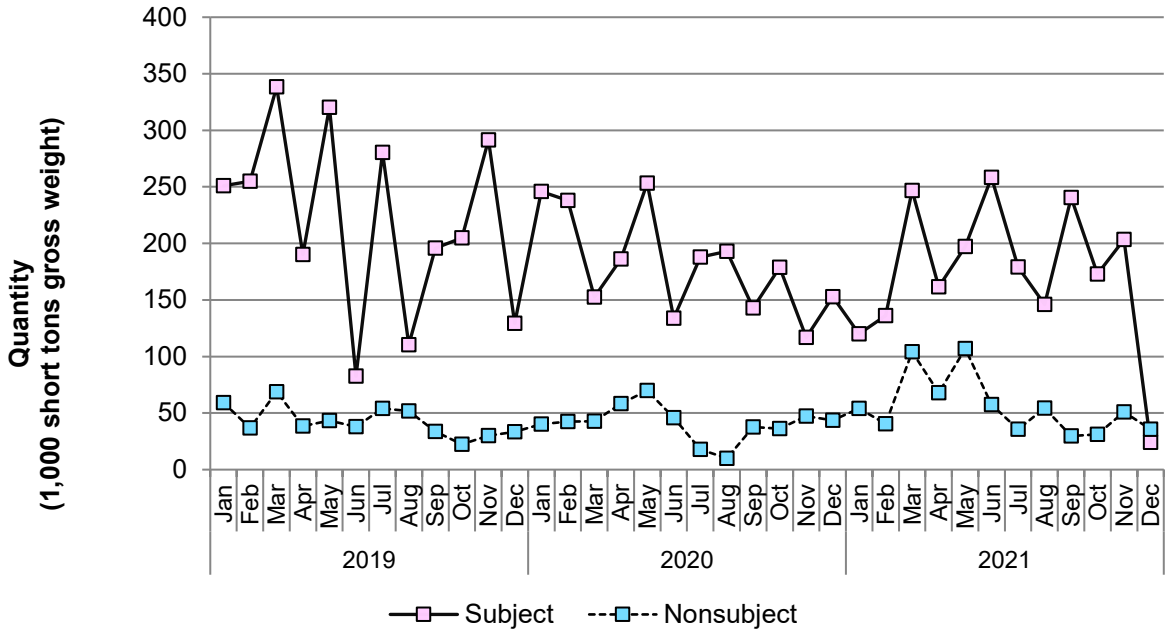
Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Figure IV-4
UAN: U.S. imports from individual subject sources, by source and month



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

Figure IV-5
UAN: U.S. imports from aggregated subject and nonsubject sources, by month



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

Apparent U.S. consumption and market shares

Quantity

Table IV-8 and figure IV-6 present data on apparent U.S. consumption and U.S. market shares by quantity for UAN.[12] The quantity of apparent U.S. consumption increased by 2.3 percent during 2019-20 then decreased by 5.0 percent during 2020-21, decreasing overall by 2.9 percent between 2019 and 2021. U.S. producers' market share fluctuated but increased by 2.2 percentage points during 2019-21, from 78.6 percent in 2019 to 82.3 percent in 2020 and 80.8 percent in 2021. Subject import market share decreased from 17.9 percent in 2019 to 14.4 percent in 2020 then increased slightly to 14.5 percent in 2021, ending 3.4 percentage points lower in 2021 than in 2019. Nonsubject import market share decreased from 3.5 percent in 2019 to 3.3 percent in 2020 but then increased to 4.7 percent in 2021, ending 1.2 percentage points higher in 2021 than in 2019.

Table IV-8
UAN: Apparent U.S. consumption and market shares based on quantity, by source and period

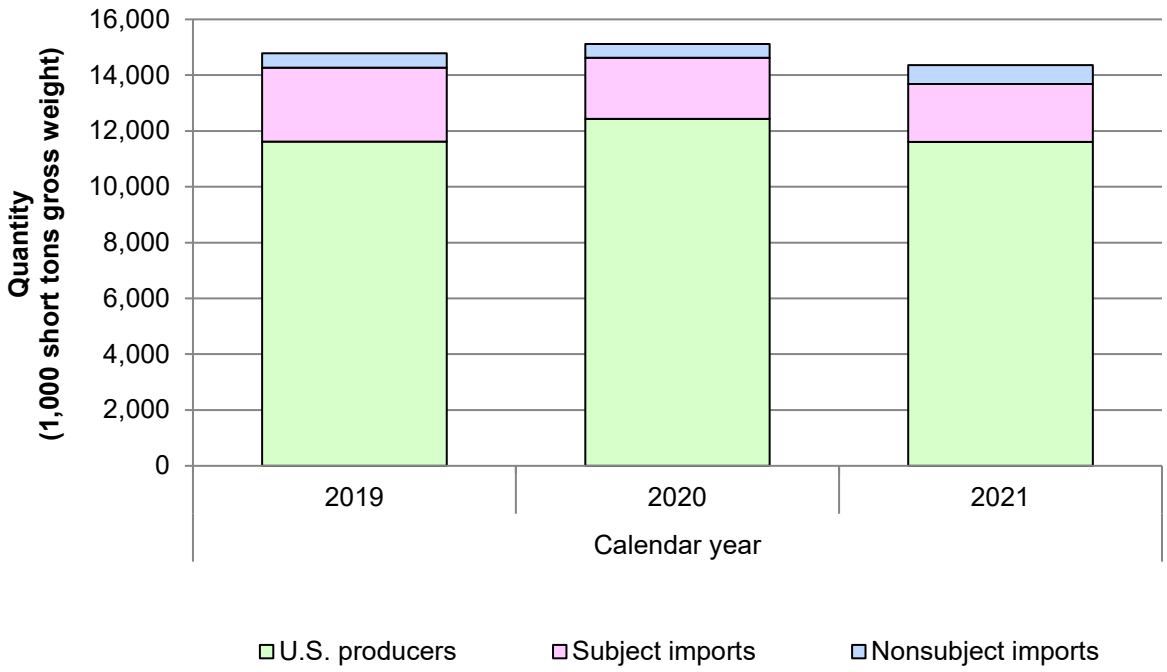
Quantity in short tons gross weight; Shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Quantity	11,621,493	12,439,564	11,603,424
Russia	Quantity	1,706,932	1,186,296	1,165,275
Trinidad and Tobago	Quantity	942,579	996,137	920,601
Subject sources	Quantity	2,649,511	2,182,433	2,085,876
Canada	Quantity	452,234	422,437	467,542
All other sources	Quantity	58,131	69,830	200,923
Nonsubject sources	Quantity	510,366	492,267	668,465
All import sources	Quantity	3,159,877	2,674,700	2,754,341
All sources	Quantity	14,781,370	15,114,264	14,357,765
U.S. producers	Share	78.6	82.3	80.8
Russia	Share	11.5	7.8	8.1
Trinidad and Tobago	Share	6.4	6.6	6.4
Subject sources	Share	17.9	14.4	14.5
Canada	Share	3.1	2.8	3.3
All other sources	Share	0.4	0.5	1.4
Nonsubject sources	Share	3.5	3.3	4.7
All import sources	Share	21.4	17.7	19.2
All sources	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires and from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series.

[12] See appendix K for apparent U.S. consumption data based on shipments of U.S. imports.

Figure IV-6
UAN: Apparent U.S. consumption based on quantity, by source and period



Source: Compiled from data submitted in response to Commission questionnaires and from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series.

Value

Table IV-9 and figure IV-7 present data on apparent U.S. consumption and U.S. market shares by value for UAN. The value of apparent U.S. consumption decreased by 19.1 percent between 2019 and 2020 then increased by 74.1 percent between 2020 and 2021, increasing overall by 40.9 percent during 2019-21. U.S. producers' market share fluctuated but increased by 1.4 percentage points during 2019-21, increasing from 79.2 percent in 2019 to 81.9 percent in 2020 then decreasing to 80.6 percent in 2021. Subject import market share decreased from 16.7 percent in 2019 to 13.8 percent in 2020 then increased to 14.4 percent in 2021, ending 2.3 percentage points lower in 2021 than in 2019. Nonsubject import market share increased by 0.8 percentage points between 2019 and 2021, increasing from 4.1 percent in 2019 to 4.3 percent in 2020 and 4.9 percent in 2021.

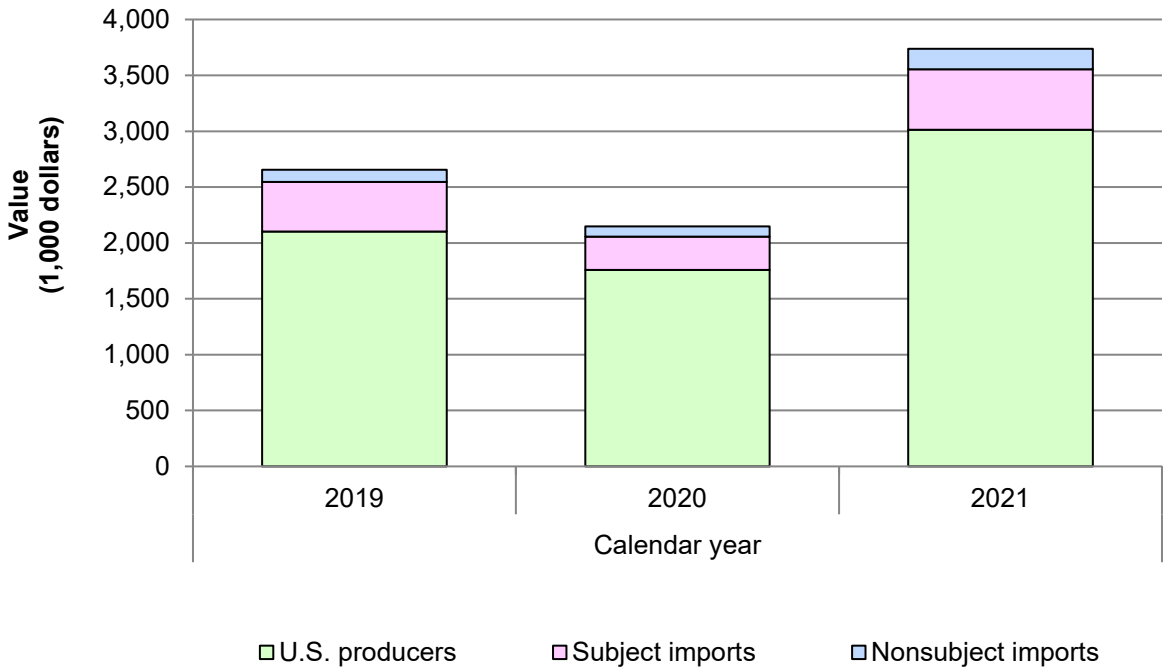
Table IV-9
UAN: Apparent U.S. consumption and market shares based on value, by source and period

Value in 1,000 dollars; shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Value	2,101,959	1,758,572	3,013,382
Russia	Value	291,249	163,225	283,924
Trinidad and Tobago	Value	152,310	134,105	256,016
Subject sources	Value	443,559	297,330	539,940
Canada	Value	96,507	79,272	122,922
All other sources	Value	11,860	12,467	61,932
Nonsubject sources	Value	108,367	91,740	184,854
All import sources	Value	551,926	389,069	724,794
All sources	Value	2,653,885	2,147,641	3,738,176
U.S. producers	Share	79.2	81.9	80.6
Russia	Share	11.0	7.6	7.6
Trinidad and Tobago	Share	5.7	6.2	6.8
Subject sources	Share	16.7	13.8	14.4
Canada	Share	3.6	3.7	3.3
All other sources	Share	0.4	0.6	1.7
Nonsubject sources	Share	4.1	4.3	4.9
All import sources	Share	20.8	18.1	19.4
All sources	Share	100.0	100.0	100.0

Source: Compiled from data submitted in response to Commission questionnaires and from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Figure IV-7
UAN: Apparent U.S. consumption based on value, by source and period



Source: Compiled from data submitted in response to Commission questionnaires and from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series. Value data reflect landed duty-paid values.

Table IV-10 presents U.S. importers' end-of-period storage capacity, inventories, and storage capacity utilization.[13] [14] U.S. importers' end-of-period storage capacity fluctuated but increased by *** percent during 2019-21.[15] U.S. importers' storage capacity utilization decreased from *** percent in 2019 to *** percent in 2020 then increased to *** percent in 2021.

[13] See table D-1 and figure D-1 in appendix D for monthly data on U.S. importers' inventories. Also, see table D-10 and figure D-2 for industrywide storage capacity and inventory data on a quarterly basis.

[14] See tables D-3 and D-4 in appendix D for narrative responses from U.S. importers describing their inventory levels of UAN during 2019-21.

[15] *** of 12 U.S. importers reported no changes in their end-of-period storage capacity during 2019-21. Of the *** U.S. importers that reported changes in storage capacity, *** U.S. importers (***) reported higher storage capacity in 2021 compared to 2019, while *** U.S. importers (***) reported lower storage capacity.

Table IV-10
UAN: U.S. importers' end-of-period storage capacity, inventories, and storage capacity utilization rate, by period

Quantity in short tons gross weight; Storage capacity utilization in percent

Item	2019	2020	2021
Storage capacity	***	***	***
Inventories: Imports	***	***	***
Inventories: U.S. produced	***	***	***
Inventories: Mixed	***	***	***
Inventories: Combined	***	***	***
Storage capacity utilization	***	***	***

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

Note: End-of-period storage capacity and inventories represent levels as of December 31 for a given year. Inventories of imports of UAN reflect inventories reported in U.S. importer questionnaire responses. These inventories do not include data reported by ***. Inventories of domestically produced UAN reflect inventories reported in U.S. producer questionnaire responses by firms that operate as both U.S. producers and U.S. importers. These inventories were reported by the following: ***. Inventories of mixed UAN reflect inventories reported in U.S. purchaser questionnaire responses by firms that operate as both U.S. importers and U.S. purchasers. Inventory data collected in U.S. purchaser questionnaires are not separated by source. These inventories were reported by the following: ***.

Table IV-11 presents U.S. importers' narrative responses describing their storage locations.

Table IV-11
UAN: Narratives describing U.S. importers' storage locations

Firm	Narrative explanation
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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

Part V: Pricing data

Factors affecting prices

Raw material costs

Natural gas is the major feedstock from which UAN is produced. Natural gas is used to manufacture ammonia, which in turn is used to produce urea and ammonium nitrate.[1] The higher the cost of natural gas, the higher the proportion of UAN production costs accounted for by natural gas. At the benchmark Henry Hub, natural gas spot prices averaged $3.11 per million British thermal units (MMBtu) in January 2019 and increased 20.9 percent to an average of $3.76 per MMBtu in December 2021. During 2019-21 the lowest gas price was $1.63 per MMBtu in June 2020 and the highest $5.51 MMBtu in October 2021 (figure V-1).[2] Natural gas prices fell in late 2021 and increased by 116.5 percent between December 2021 and May 2022. U.S. producers reported raw materials' share of the total cost of goods sold ("COGS") was 31.2 percent in 2019, 27.9 percent in 2020, and 39.4 percent in 2021.[3] [4]

Producers and importers were asked how natural gas prices had changed between January 2019 and December 2021, half the producers (4 of 8) and most of the importers (6 of 10) reported gas prices fluctuated. In contrast, most producers (6 of 8) and most importers (7 of 10) reported gas prices had increased since the January 2021.[5] Most purchasers (26 of 33) were familiar with raw material costs, but most purchasers (25 of 32) reported raw material costs did not affect contracts.

[1] Petition, pp. I-11, I-23.

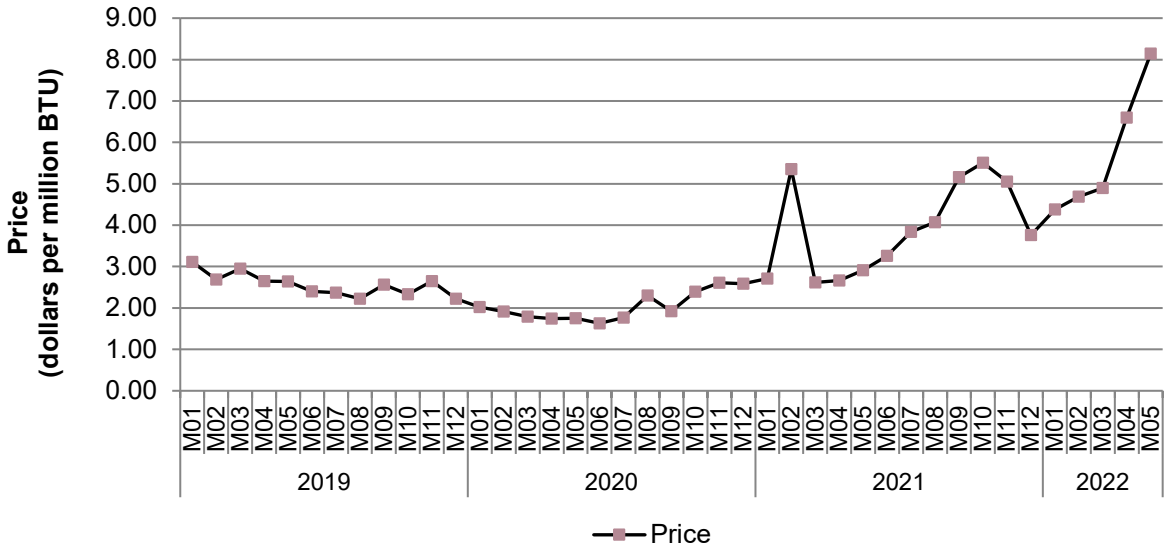
[2] Natural gas spot prices approached record highs during the week of February 14, 2021 as colder-than-normal weather led to imbalances in natural gas supply and demand. Natural gas production declined because of freeze-offs during a period of high demand for heating and power. https://www.eia.gov/todayinenergy/detail.php?id=47016#.

[3] Natural gas costs were 81.1 percent of all raw material costs in 2021.

[4] CF Industries reported in its 2020 Form 10-K annual report that natural gas is the principal raw material and primary fuel source used in the ammonia production process at its nitrogen manufacturing facilities. In 2020, natural gas accounted for approximately one-third of total production costs for nitrogen products. In 2020, its nitrogen manufacturing facilities consumed, in the aggregate, approximately 365 million MMBtus of natural gas. Petition, Exhibit I-30.

[5] All other responding producers and importers reported the price of natural gas had fluctuated after January 2021.

Figure V-1
Natural gas: U.S. prices by month (not seasonally adjusted), January 2019 through May 2022



Source: U.S. Energy Information Administration, Henry Hub Natural Gas Spot Price (MHHNGSP), retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MHHNGSP, accessed June 6, 2022.

Note: Underlying data for figures in Part V are in Appendix L.

Petitioners testified that the price of UAN in the United States are not well correlated month to month with the U.S. price of natural gas. [6] CF Industries hedges natural gas to manage UAN production costs (this could cause the price of the natural gas they purchase in any month to differ from the publicly available price for that month).[7] Petitioners state that because U.S. gas prices are lower than in most places in the world, the U.S. price of gas does not affect its UAN price.[8] Instead they claim that UAN prices tend to respond to natural gas price in outside the United States.[9] Figure V-2 shows monthly natural gas prices in the United Kingdom between January 2019 and March 2022. UK prices are higher than those in the United States in all but one month during that period, UK prices begin to increasingly diverge from U.S. prices after

[6] Hearing transcript pp. 149-152 (Will, Frost, Szamosszegi).

[7] Hearing transcript pp. 150 (Will). Hedging the prices of natural gas prices does not make the firms totally unresponsive to the spot price of gas, for example, when natural gas prices spiked in February 2021, ***.

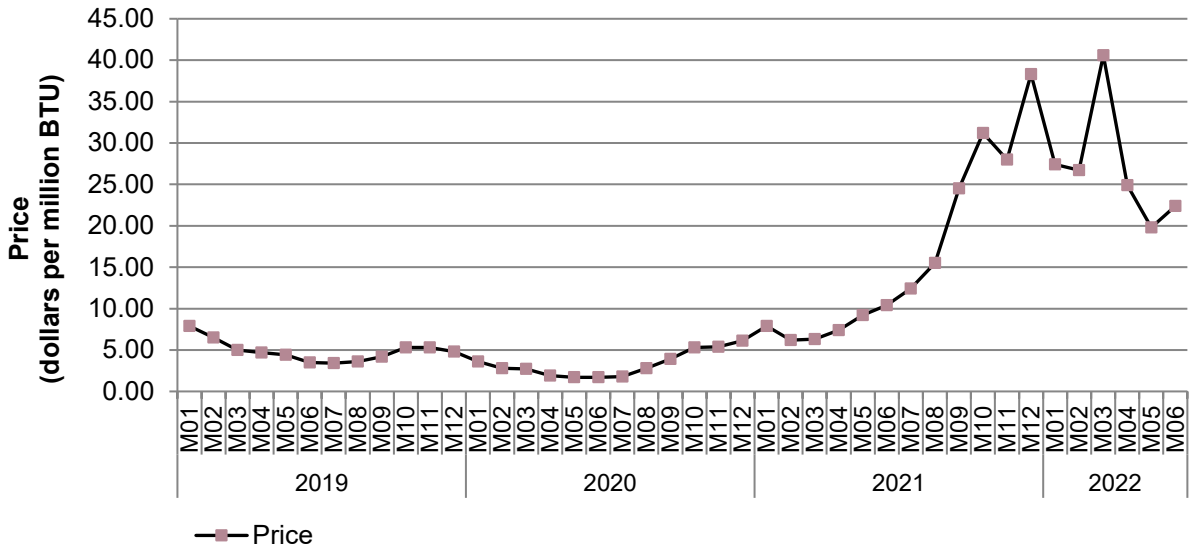
[8] Hearing transcript pp. 149 (Will).

[9] Hearing transcript pp. 149 (Will).

August 2020, rising steadily to October 2021 and then begin to fluctuating at prices well above U.S. prices.

Respondents testified that "UAN prices are closely correlated the price of its major input – natural gas – and the prices of downstream crops or corn on which it is used."[10] Respondents state that the EU market now needs UAN imports, irrespective of any EU trade action as the firms in the EU that produced UAN have reduced production because of recent high natural gas prices. According to respondents, this creates opportunities for Russian UAN supply to Europe.[11]

Figure V-2
Natural gas: U.K. Prices by month (not seasonally adjusted), January 2019 through June 2022



Source: UK Natural Gas - 2022 Data - 2020-2021 Historical - 2023 Forecast - Price - Quote (tradingeconomics.com), UK Natural Gas NBP Spot Price - ERCE, Retrieved June 27, 2022.

Note: Pricing data reported were derived from United Kingdom unit energy convention pence per therm and the exchange rate at the time. Underlying data for figures in Part V are in Appendix L.

[10] Hearing transcript p. 191, 213 (Peyton, Emerson).
[11] EuroChem North America's posthearing brief pp. 4-5.

Transportation costs to the U.S. market

Transportation costs as a percentage of total costs for UAN shipped from Russia to the United States averaged 15.9 percent during 2019, 18.5 percent during 2020, and 8.1 percent during 2021. Both parties agree that transportation costs from Russia are currently very high.[12] Transportation costs as a percentage of total costs for UAN shipped from Trinidad and Tobago to the United States averaged 27.8 percent during 2019, 34.5 percent during 2020, and 10.8 percent in 2021.[13] These estimates were derived from official import data and represent the transportation and other charges on imports.[14]

[12] Petitioner CF Industries reported that recently shipping Russia via the Black Sea to the United States would cost $140 to $200 per ton of UAN. Hearing transcript, p. 139 (Will).

Respondents reported that tanker freight was currently $140 to $150 per ton. But in 2019 and 2020 its costs were $23 to $24 per ton, and this was much lower than a U.S. flag vessel for a shorter voyage. Hearing transcript, p. 218 (Harlander).

[13] Respondent importer Helm reported that the Houston market is favorable because the cost of shipping UAN from Trinidad and Tobago to Houston on smaller ocean-going vessels was lower than the U.S. industry's cost of barging UAN from their production facilities in Louisiana on the Mississippi River. Helm estimates that shipping UAN from Trinidad and Tobago to Houston cost about $*** per short ton, compared to CF Industries' costs to barge UAN from its Donaldsonville, Louisiana plant to Houston at $*** per short ton. Helm further reported shipping costs of $*** per short ton via vessel from Trinidad and Tobago to the West Coast and $*** per short ton via vessel to the East Coast. Respondents MHTL and Helm's postconference brief, pp. 23-24, Responses to ITC Staff Questions, pp 2-4.

[14] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2019, 2020, and 2021 and then dividing by the customs value based on the HTS statistical reporting number 3102.80.0000.

U.S. inland transportation costs

Most U.S. producers (5 of 8) and importers (7 of 10) reported that purchasers typically arranged transportation.[15] U.S. producers (***) and importers (***) reported that they typically arrange transportation to their customers. These three U.S. producers reported U.S. inland transportation costs ranging from 6 to 20 percent. Only three of the importers that reported they arranged U.S. transportation reported transportation costs ranging from 0 to 20 percent.[16] [17] [18]

Pricing practices

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, and price lists to set prices for UAN (table V-1). Seven of 8 responding U.S. producers and all 11 responding importers used transaction-by-transaction negotiations. The "other" method reported by importer *** is that prices are set by market publication, then a "true-up" is submitted on cargo volumes for actual prices as sold.

[15] One importer ***.

[16] ***. Petitioner's postconference brief, Responses to Staff Questions, pp. 9-10.

Respondent importer Helm reports that it has a freight advantage of "at least $20 per short ton" delivering to the Stockton, California terminal by ocean vessel from Trinidad and Tobago "versus CF Industries delivering by rail or Jones Act compliant vessels from" its domestic production facilities. Conference transcript, p. 189 (Peyton).

[17] Respondent importer Helm notes that it developed a terminal in Theodore, Alabama after it concluded that neither CF Industries or any other U.S. UAN producer had production facilities on the CSX Railway network and that it worked closely with CSX to develop this terminal. Hearing transcript, p. 189 (Peyton).

[18] Respondent purchaser International Raw Materials notes that UAN must have special tankers, rail cars, trucks, and storage facilities for shipping the product, which must be transported in liquid form and often results in price competition for still space. Conference transcript, p. 13 (Rosenthal).

Table V-1
UAN: Count of U.S. producers' and importers' reported price setting methods

Method	U.S. producers	Importers
Transaction-by-transaction	7	11
Contract	4	7
Set price list	2	4
Other	0	1
Responding firms	8	11

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

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

Fill programs prices

Petitioner and respondents agree that there are two different pricing methods, fill programs and other sales.[19] Fill programs typically occur in June and July, after the relatively short period in which UAN is most used. In the remainder of the year prices are negotiated differently.

CF Industries stated that prices tend to rise over the course of the fertilizer year from summer fill levels, as the spring application season approaches and farmer demand solidifies.[20]

U.S. produced UAN is frequently sold under fill programs. CF Industries stated that it "aims to sell a quarter to half of {its} annual production" under fill programs.[21] CF Industries reported that all its sales under fill programs are on a contract basis.[22]

According to CF Industries "customers that purchase summer fill assume inventory carrying costs for up to 6-9 months. CF's customers also assume the risks of price fluctuations and lower than anticipated farmer demand during the spring application season. CF's customers expect and demand relatively low prices during summer fill campaigns to compensate them for these costs and risks." [23] Under a fill program "sales are for a limited time and a limited quantity, That means that sometimes a customer may not get to buy as much as it wants at CF's lowest summer fill price." [24] The prices are set in the "fill season and delivered over subsequent months."[25]

[19] Hearing transcript pp. 111, 181, 261-262 (O'Connell, O'Neil, Harlander)
[20] Hearing transcript p. 51 (O'Connell).
[21] Hearing transcript p. 50 (O'Connell).
[22] Hearing transcript p. 172 (O'Connell).
[23] Hearing transcript pp. 51 (O'Connell).
[24] Hearing transcript pp. 51 (O'Connell).
[25] Hearing transcript pp. 61-62 (Szamosszegi).

CF Industries testified that it examines a number of factors when it sets its summer fill price. U.S. and global demand are predicted from conversations with customers and general partners, prices in trade publications, pricing of alternative nitrogen products, and grain prices. This demand suggests pricing and cost structures for supply into the marketplace. "There's times where we price what the market would probably call too low because we sell a lot of volume in a very short period of time, and there's times at which we price we enter at too high of a price and then we have to go back and lower price and lower price, again, as happened in 2020."[26] It *** "and routinely adjusts prices up or down depending on customers' reactions."[27]

Respondents testified that "CF is the clear price leader in the UAN market. CF leads, and everyone else follows. It's particularly true in fill business, which happens usually every July. Gavilon and other buyers make large purchases during the summer fill campaign, fill their tanks to prepare for the upcoming spring planting season. When CF opens summer fill, Gavilon sends CF estimated requests of the number of tons it would like to purchase from CF at each location… Then CF sets the price at each location. CF does not negotiate the fill prices. Gavilon then submits final ton requests at those prices, and CF determines exactly how much they will supply. Gavilon naturally tries to buy as much as it can from CF each July. Unfortunately, CF consistently chooses to provide significantly less than Gavilon's stated needs even at CF's prices. Gavilon cannot understand how CF can claim that imports are causing declines in prices when CF is the company that sets the market price."[28]

Other price negotiations

According to CF Industries "spot negotiation during the rest of the year where it's a phone call and you're talking about availability, timing, price, a number of different characteristics that would go into you making a decision on who you were going to buy from, the volume you were going to buy from, and the ultimate price is a direct negotiation."[29] Respondents agree that "after the fill is over" it's "hard negotiation, but friendly."[30]

[26] Hearing transcript pp. 130-131 (Will). CF Industries states that in its 2020 fill program it had to reduce its price $30 from its original price because of competition. Hearing transcript p. 134 (O'Connell)

[27] Petitioner's posthearing brief, Answers to Commissioners' questions, pp.30-32.

[28] Hearing transcript pp. 184-185 (Harlander).

[29] Hearing transcript p. 263 (Lambert).

[30] Hearing transcript pp. 261-262 (Harlander).

Contract and spot sales

U.S. producers and importers reported selling the majority of their UAN under short-term contracts, although U.S. producers also had appreciable sales made through spot sales, while importers also had appreciable sales made through annual contracts (table V-2).

Table V-2
UAN: U.S. producers' and importers' shares of commercial U.S. shipments by type of sale, 2021

Share in percent

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

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

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

Four U.S. producers reported using short-term contracts, with contract durations ranging from 84 to 95 days. All four firms did not allow for price renegotiation during the contract. One firm reported a fixed quantity provision, and three firms reported a provision that fixed both quantity and price. None of these four firms indexed short-term contracts to the cost of raw materials during the contract period.

Eight importers reported using short-term contracts, with average durations ranging from 30 to 120 days. All eight importers did not allow for price renegotiation and had a fixed price and quantity provision. No short-term contracts reported by importers were indexed to raw material costs. Two importers reported using annual contracts, both reported that prices were not indexed to raw material prices.

Purchase frequency and suppliers contacted

Four purchasers reported that they purchase product daily, 7 purchase weekly, 14 purchase monthly, and 5 purchase quarterly.[31] Twenty-two of 33 responding purchasers reported that their purchasing frequency had not changed since 2019. Most of the purchasers that reported changing their purchase patterns reported these changed occurred relatively recently for reasons including: accelerating purchases in response to the potential tariffs on imported UAN; purchasing when tons are available; reduced purchase frequency because the

[31] Two purchasers reported purchasing annually and two reported purchasing on an "other" basis.

firm's overall purchases declined; limited quantities were available from CF Industries in 2021 and 2022; and purchasing smaller amounts more frequently to minimize the risk from price fluctuations.

Most (23 of 32 responding) purchasers contact one to four suppliers before making a purchase.

Sales terms and discounts

U.S. producers and importers reported various combinations of sales terms, though firms were slightly more likely to quote prices on an f.o.b. basis than on a delivered basis. Two U.S. producers and one importer reported quoting prices on both a delivered and f.o.b. basis, while four U.S. producers and four importers reported quoting prices on an f.o.b. basis only and two U.S. producers and four importers reported quoting prices on a delivered basis only.[32]

U.S. producers and importers reported offering a variety of discounts. Four U.S. producers and four importers offer annual total volume discounts and two U.S. producers and two importers offer quantity discounts. U.S. producer *** offers both quantity and total volume discounts based on truck, railcar, and barge volume. Importer ***, who offers discounts based on annual total volume, has a volume target and a subsequent rebate for reaching the volume. Other rebates include using certain types of transportation, prepay discounts, and discounts depending on customer category and account size.

Price leadership

Almost all purchasers (32 of 33) reported one or more price leaders in the UAN market.[33] Most purchasers (21) reported CF Industries alone as the price leader, seven reported multiple price leaders including CF Industries, and four purchasers listed price leaders but did not mention CF Industries. Five reported that Koch was a price leader. The purchasers that reported CF Industries to be a price leader typically reported that CF Industries changes prices and other firms follow. Others report that CF Industries is the largest producer, CF Industries is first to adjust prices, CF Industries has large fill programs, other suppliers reference

[32] Reported f.o.b. locations of U.S. producers include Tampa, FL; Pryor, OK; Enid, OK; Dodge City, KS; Beatrice, NE; Fort Dodge, IA and "locations of plants."

Reported f.o.b. locations of importers in the United States include Toledo, OH; Philadelphia, PA; Baltimore, MD; Portland, OR; Stockton, CA; Hanford, CA; Pasco, WA; Umatilla, OR; and Central Ferry, WA.

[33] ***

CF Industries' price and supply, other firms will wait to sell until CF Industries publishes prices, CF Industries decides how much it wants to supply to purchaser's locations, and that competitors either meet CF Industries' price to secure business when CF Industries makes offers or competitors stay out of the market hoping to get a higher price after CF Industries has the sales that CF Industries wants.

CF Industries claimed that importers sometimes sold UAN at prices "CF less $5".[34] Helm reports that it "only follows CF Industries' pricing and participates as a price-taker in the market." "It has never offered prices at 'CF minus $5,' or similar terms."[35] IRW reports that "On the West Coast, our competition is our import competition and, you know, I -- the market data suggest that we get a premium, so that's CF plus 10, and that's because of reliability."[36]

Consignment sales

Petitioners state that imports have come into the United States on a consignment basis (tons arrive unpriced and are only priced when sold to the next customer in the supply chain, this "virtually guarantees" that importers profit from every ton they import on this basis, and ties up storage space in tanks).[37]

Three importers (***) reported that they had purchased under "consignment-like arrangements" defined as "imported UAN on terms either 1) where the foreign supplier retains title to the merchandise after importation until the UAN was sold to a downstream U.S. purchaser and in which the final price your firm paid to the foreign supplier was not determined until your firm sold the UAN or 2) in which the foreign supplier guaranteed your firm a profit margin, marketing fee, post-sale rebates, profit shares, paid for storage, or paid for distribution costs." ***.[38]

***[39] Respondent MHTL states that *** of imports from Trinidad and Tobago were not on a

[34] Hearing transcript p. 49 (O'Connell).
[35] MHTL's posthearing brief, Annex XI at p. 3.
[36] Hearing transcript pp. 251-251 (O'Neill).
[37] Hearing transcript pp. 36-37, 166 (Will).
[38] ***.
[39] ***.

consignment basis.[40] These nonconsignment sales include *** with product assigned a customer and price before shipment from Trinidad and Tobago; HFC owned inventories (approximately *** percent of its volume) with HFC carrying "all economic risk associated with their subsequent resale"; *** of HFC's sales it had an incentive "to set the highest price possible." [41]

***.[42] ***. According to Gavilon, it does not sell to its customers under consignment-like terms. Gavilon purchases some UAN on an *** and the supplier guarantees a specified maximum quantity per year and other delivery terms, including an ***. The ***. Gavilon argues that this is not a consignment agreement and it is incentivized to sell at the ***. Gavilon also ***. Gavilon's purchase from ***, on average account for *** of its annual supply. ***.[43]

Respondent Acron states that it does not sell under consignment-like terms because ***.[44] Respondent EuroChem North America notes that "at the Commission hearing, CF witnesses said that EuroChem did not engage in the claimed objectionable pricing practices."[45]

[40] MHTL's posthearing brief p. 11.

[41] MHTL's posthearing brief Annex XV.

[42] ***.

[43] Gavilon Fertilizer posthearing brief, responses to questions, p. 8. Gavilon reported that this practice *** .

[44] Acron's posthearing brief pp. 1-2.

[45] EuroChem North America's posthearing brief, p. 4.

Price data from trade publication

Prices for UAN are relatively transparent as several trade publications,[46] such as Green Markets (Green Markets® A Bloomberg Company), publish price lists and general market intelligence frequently. Figure V-2 shows average monthly U.S. prices of UAN-32 *** during January 2019-June 2022, calculated from its weekly price data.[47] In general, prices decreased in 2019 and 2020, followed by an increase in 2021. Prices increased through April 2022. From January 2019 to December 2021, wholesale UAN prices increased *** percent while natural gas prices (shown in figure V-1) increased 20.9 percent.

[46] "Industry publications like Argus and Fertecon report on UAN prices in the United States on a daily, weekly, or monthly basis, including prices for delivery at the Port of New Orleans, or NOLA, and to Midwest, East Coast, and West Coast port or terminal locations." Hearing transcript pp. 48-49 (Frank O'Connell).

[47] Green Market® A Bloomberg Company's price quotes do not reflect actual transactions but represent current market conditions as perceived by selected buyers and sellers.

Figure V-3
*****, January 2019 through June 2022**

* * * * * * *

Source: Green Markets® A Bloomberg Company price scan, accessed June 26, 2022.

Note: Underlying data for figures in Part V are in Appendix L.

Price data

The Commission requested U.S. producers and importers to provide monthly data for the total quantity and f.o.b. value of the following UAN products shipped to unrelated U.S. customers during 2019-21.

Product 1.-- Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers.

Product 2.-- Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors.

Seven U.S. producers and nine importers provided usable pricing data for sales of the requested products from subject countries, eight for Russian imports and one for imports from Trinidad and Tobago, although not all firms reported pricing for all products for all months.[48] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of UAN,[49] *** percent of U.S. shipments of subject imports from Russia in 2021, and *** percent of U.S. shipments of subject imports from Trinidad and Tobago in 2021.[50]

Price data for products 1-2 are presented in tables V-3 to V-4 and figures V-3 to V-4. Nonsubject Canadian prices are presented in Appendix L.

[48] Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[49] ***.

[50] Pricing coverage is based on U.S. shipments reported in questionnaires. ***. Email from ***, May 26, 2022. ***.

Table V-3
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by source and month

Price in dollars per short ton gross weight, quantity in short tons gross weight, margin in percent.

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Trinidad and Tobago price	Trinidad and Tobago quantity	Trinidad and Tobago margin
2019 M01	***	***	***	***	***	***	***	***
2019 M02	***	***	***	***	***	***	***	***
2019 M03	***	***	***	***	***	***	***	***
2019 M04	***	***	***	***	***	***	***	***
2019 M05	***	***	***	***	***	***	***	***
2019 M06	***	***	***	***	***	***	***	***
2019 M07	***	***	***	***	***	***	***	***
2019 M08	***	***	***	***	***	***	***	***
2019 M09	***	***	***	***	***	***	***	***
2019 M10	***	***	***	***	***	***	***	***
2019 M11	***	***	***	***	***	***	***	***
2019 M12	***	***	***	***	***	***	***	***
2020 M01	***	***	***	***	***	***	***	***
2020 M02	***	***	***	***	***	***	***	***
2020 M03	***	***	***	***	***	***	***	***
2020 M04	***	***	***	***	***	***	***	***
2020 M05	***	***	***	***	***	***	***	***
2020 M06	***	***	***	***	***	***	***	***
2020 M07	***	***	***	***	***	***	***	***
2020 M08	***	***	***	***	***	***	***	***
2020 M09	***	***	***	***	***	***	***	***
2020 M10	***	***	***	***	***	***	***	***
2020 M11	***	***	***	***	***	***	***	***
2020 M12	***	***	***	***	***	***	***	***

Table continued on next page.

Table V-3 Continued
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by month

Price in dollars per short ton gross weight, quantity in short tons gross weight, margin in percent.

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Trinidad and Tobago price	Trinidad and Tobago quantity	Trinidad and Tobago margin
2021 M01	***	***	***	***	***	***	***	***
2021 M02	***	***	***	***	***	***	***	***
2021 M03	***	***	***	***	***	***	***	***
2021 M04	***	***	***	***	***	***	***	***
2021 M05	***	***	***	***	***	***	***	***
2021 M06	***	***	***	***	***	***	***	***
2021 M07	***	***	***	***	***	***	***	***
2021 M08	***	***	***	***	***	***	***	***
2021 M09	***	***	***	***	***	***	***	***
2021 M10	***	***	***	***	***	***	***	***
2021 M11	***	***	***	***	***	***	***	***
2021 M12	***	***	***	***	***	***	***	***

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

Note: Product 1: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration (“32% UAN”), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers.

Table V-4
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by source and month

Price in dollars per short ton gross weight, quantity in short tons gross weight, margin in percent.

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Trinidad and Tobago price	Trinidad and Tobago Quantity	Trinidad and Tobago margin
2019 M01	***	***	***	***	***	***	***	***
2019 M02	***	***	***	***	***	***	***	***
2019 M03	***	***	***	***	***	***	***	***
2019 M04	***	***	***	***	***	***	***	***
2019 M05	***	***	***	***	***	***	***	***
2019 M06	***	***	***	***	***	***	***	***
2019 M07	***	***	***	***	***	***	***	***
2019 M08	***	***	***	***	***	***	***	***
2019 M09	***	***	***	***	***	***	***	***
2019 M10	***	***	***	***	***	***	***	***
2019 M11	***	***	***	***	***	***	***	***
2019 M12	***	***	***	***	***	***	***	***
2020 M01	***	***	***	***	***	***	***	***
2020 M02	***	***	***	***	***	***	***	***
2020 M03	***	***	***	***	***	***	***	***
2020 M04	***	***	***	***	***	***	***	***
2020 M05	***	***	***	***	***	***	***	***
2020 M06	***	***	***	***	***	***	***	***
2020 M07	***	***	***	***	***	***	***	***
2020 M08	***	***	***	***	***	***	***	***
2020 M09	***	***	***	***	***	***	***	***
2020 M10	***	***	***	***	***	***	***	***
2020 M11	***	***	***	***	***	***	***	***
2020 M12	***	***	***	***	***	***	***	***

Table continued on next page.

Table V-4 Continued
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by month

Price in dollars per short ton gross weight, quantity in short tons gross weight, margin in percent.

Period	U.S. price	U.S. quantity	Russia price	Russia quantity	Russia margin	Trinidad and Tobago price	Trinidad and Tobago Quantity	Trinidad and Tobago margin
2021 M01	***	***	***	***	***	***	***	***
2021 M02	***	***	***	***	***	***	***	***
2021 M03	***	***	***	***	***	***	***	***
2021 M04	***	***	***	***	***	***	***	***
2021 M05	***	***	***	***	***	***	***	***
2021 M06	***	***	***	***	***	***	***	***
2021 M07	***	***	***	***	***	***	***	***
2021 M08	***	***	***	***	***	***	***	***
2021 M09	***	***	***	***	***	***	***	***
2021 M10	***	***	***	***	***	***	***	***
2021 M11	***	***	***	***	***	***	***	***
2021 M12	***	***	***	***	***	***	***	***

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

Note: Product 2: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors.

Figure V-3
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by source and quarter, by source and month

Price of product 1

* * * * * * *

Volume of product 1

* * * * * * *

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

Note: Product 1: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers.

Figure V-4
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by source and quarter, by source and month

Price of product 2

* * * * * * *

Volume of product 2

* * * * * * *

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

Note: Product 2: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors.

Price trends

In general, prices increased during 2019-21. Table V-5 and figure V-5 summarize the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** to *** percent during 2019-21 while import price increases ranged from *** to *** percent. Prices tended to decline between 2019 and the end of 2020, and then tended to increase from the beginning of 2021 to its end.

Table V-5
UAN: Summary of price data, by product and source, January 2019-December 2021

Volume in short tons gross weight, price in dollars per short ton gross weight

Product	Source	Number of months	Quantity of shipments	Low price	High price	First month price	Last month price	Percent change in price over period
Product 1	United States	***	***	***	***	***	***	***
Product 1	Russia	***	***	***	***	***	***	***
Product 1	Trinidad and Tobago	***	***	***	***	***	***	***
Product 2	United States	***	***	***	***	***	***	***
Product 2	Russia	***	***	***	***	***	***	***
Product 2	Trinidad and Tobago	***	***	***	***	***	***	***

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

Note: Percent change column is percentage change from January 2019 to December 2021.

Figure V-5
UAN: Indexed U.S. producer prices and subject importers, January 2019 through December 2021

U.S. producer

* * * * * * *

Subject U.S. importers

* * * * * * *

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

Price comparisons

As shown in tables V-6 and V-7, there were more instances of overselling than underselling and more product was oversold for both pricing products. Prices for product imported from Russia were below those for U.S.-produced product in 24 of 72 instances (*** short tons gross weight); margins of underselling ranged from *** to *** percent. In the remaining 48 instances (*** short tons gross weight), prices for product from Russia were between *** and *** percent above prices for the domestic product. Prices for product imported from Trinidad and Tobago were below those for U.S.-produced product in 15 of 36 instances (*** short tons gross weight); margins of underselling ranged from *** to *** percent. In the remaining 21 instances (*** short tons gross weight), prices for product from Trinidad and Tobago were between *** and *** percent above prices for the domestic product.

Table V-6
UAN: Instances of underselling and overselling and the range and average of margins, by product

Quantity in short tons gross weight; margin in percent

Product	Type	Number of months	Quantity	Average margin	Min margin	Max margin
Product 1	Underselling	16	***	***	***	***
Product 2	Underselling	23	***	***	***	***
All products	Underselling	39	2,517,926	8.0	0.1	22.1
Product 1	Overselling	20	***	***	***	***
Product 2	Overselling	49	***	***	***	***
All products	Overselling	69	3,486,493	(14.3)	(0.1)	(47.0)

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

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

Table V-7
UAN: Instances of underselling and overselling and the range and average of margins, by country and product

Quantity in short tons gross weight; margin in percent

Source	Product	Type	Number of months	Quantity	Average margin	Min margin	Max margin
Product 1	Russia	Underselling	16	***	***	***	***
Product 2	Russia	Underselling	8	***	***	***	***
All products	Russia	Underselling	24	***	***	***	***
Product 1	Trinidad and Tobago	Underselling	---	***	***	***	***
Product 2	Trinidad and Tobago	Underselling	15	***	***	***	***
All products	Trinidad and Tobago	Underselling	15	***	***	***	***
All products	All subject sources	Underselling	39	2,517,926	8.0	0.1	22.1
Product 1	Russia	Overselling	20	***	***	***	***
Product 2	Russia	Overselling	28	***	***	***	***
All products	Russia	Overselling	48	***	***	***	***
Product 1	Trinidad and Tobago	Overselling	---	***	***	***	***
Product 2	Trinidad and Tobago	Overselling	21	***	***	***	***
All products	Trinidad and Tobago	Overselling	21	***	***	***	***
All products	All subject sources	Overselling	69	3,486,493	(14.3)	(0.1)	(47.0)

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

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

Lost sales and lost revenue

In the preliminary phase of these investigations, the Commission requested that U.S. producers of UAN report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of UAN from Russia and Trinidad and Tobago during January 2018-March 2021. Of the eight responding U.S. producers, five reported that they had to either reduce prices or roll back announced price increases, and three firms reported that they had lost sales. Two U.S. producers submitted lost sales and lost revenue allegations. The two responding U.S. producers identified 35 firms with which they lost sales or revenue (7 consisting of lost sales allegations and 28 consisting of both types of allegations). Of these, 29 allegations were against Russia and Trinidad and Tobago combined, 6 were only against Russia, and there were no allegations against only Trinidad and Tobago.

In the final phase of these investigations, five of the eight responding U.S. producers either had to reduce prices or roll back announced price increases, and three firms reported that they had lost sales because of imports from Russia. Similarly, five of the eight 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 because of imports from Trinidad and Tobago.

Staff contacted 80 purchasers and received responses from 33 purchasers. Responding purchasers reported purchasing and importing 41.9 million short tons gross weight of UAN during 2019-21 (table V-8).[51]

[51] A number of purchasers report purchasing from other purchasers, so there is at least some double counting.

Table V-8
UAN: Purchasers' reported purchases and imports, by firm and source

Quantity in short tons gross weight, share in percent

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

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

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

Of the 33 responding purchasers, 14 reported that, since 2019, they had purchased imported UAN from Russia and 13 from Trinidad and Tobago instead of U.S.-produced product. Five of these purchasers reported that Russian import prices were lower than U.S.-produced UAN and three reported the prices of UAN from Trinidad and Tobago were lower than U.S.-produced UAN. Four of these purchasers reported that price was a primary reason for the decision to purchase Russian UAN rather than U.S.-produced product and three of these purchasers reported that price was a primary reason for the decision to purchase UAN from Trinidad and Tobago rather than U.S.-produced product. Four purchasers estimated the quantity of UAN from Russia and three from Trinidad and Tobago purchased instead of domestic product due to price; quantities ranged from *** short tons gross weight to *** short tons gross weight for Russian UAN and from *** short tons gross weight to *** short tons gross weight for UAN from Trinidad and Tobago (tables V-9, V-10, and V-11). Purchasers identified U.S. product not being available/willing to supply, having limited availability in some regions, and logistics as non-price reasons for purchasing imported rather than U.S.-produced product.

Table V-9
UAN: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in short tons gross weight

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***

Table continued on next page.

Table V-9 Continued
UAN: Purchasers' responses to purchasing subject imports instead of domestic product, by firm

Quantity in short tons gross weight

Purchaser	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity	Explanation
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
All firms	Yes--18; No—14	Yes--5; No--16	Yes--4; No--16	***	

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

Table V-10
UAN: Purchasers' responses to purchasing subject imports instead of domestic product, by source

Count in number of firms reporting: Quantity in short tons gross weight

Source	Purchased subject imports instead of domestic	Imports priced lower	Choice based on price	Quantity
Russia	14	5	4	***
Trinidad and Tobago	13	3	3	***
Subject sources	18	5	4	***

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

Table V-11
UAN: Purchasers' responses of firms reporting that they did purchase subject imports instead of domestic product because of the lower price of subject imports, by firm and source of imports

Quantity in short tons gross weight

Purchaser	Choice based on price Russia	Quantity of UAN from Russia	Choice based on price Trinidad and Tobago	Quantity of UAN from Trinidad and Tobago
***	***	***	***	***
***	***	***	***	***
***	***	***	***	***
***	***	***	***	***
Total	Yes--4	***	Yes--3; No--0	***

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

Of the 17 responding purchasers, 4 reported that U.S. producers had reduced prices in order to compete with lower-priced imports from Russia and 3 of 15 responding purchasers reported that U.S. producers reduced prices to compete with lower-priced imports from Trinidad and Tobago (table V-12).[52] Fifteen reported that they did not know for Russia and 17 reported that they did not know for Trinidad and Tobago. The reported estimated price reduction ranged from 5 to 35 percent for both Russia and Trinidad and Tobago. In describing the price reductions, purchasers indicated both that imports of UAN from Russia and Trinidad and Tobago caused general price reductions or caused price reductions in specific regions.

[52] ***.

Table V-12
UAN: Purchasers' responses to U.S. producer price reductions, by firm

Purchaser	Reported producers lowered prices	Estimated percent of U.S. price reduction	Explanation
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***

Table continued on next page.

Table V-12 Continued
UAN: Purchasers' responses to U.S. producer price reductions, by firm

Purchaser	Reported producers lowered prices	Estimated percent of U.S. price reduction	Explanation
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
All firms	Yes--4; No—12	***	NA

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

Table V-13
UAN: Purchasers' responses to U.S. producer price reductions, by source

Source	Count of purchasers reporting U.S. producers reduced prices	Average percent of estimated U.S. price reduction	Range of percent of estimated U.S. price reductions
Russia	4	20.0	***
Trinidad and Tobago	3	20.0	***
Total / average	4	20.0	***

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

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics.

- ***

- ***
- ***
- ***

Part VI: Financial experience of U.S. producers

Background[1]

Eight U.S. producers (CF Industries, CVR Partners, Dyno Nobel, Iowa Fertilizer, Koch Fertilizer, LSB Industries, PCS/Agrium, TradeMark Nitrogen) reported financial results on their U.S. UAN operations. Most U.S. producers are part of publicly traded companies, the exceptions being Koch Fertilizer and TradeMark Nitrogen.[2] The majority reported that UAN accounts for medium to large shares of relevant establishment sales.[3]

U.S. producers' descriptions regarding the impact of COVID-19 on their financial results are discussed in the *SG&A expenses and operating income or loss* section below.

Operations on UAN

Figure VI-1 presents firm-specific shares of total 2021 net sales quantity. Table VI-1 presents the U.S. industry's UAN financial results. Table VI-2 presents corresponding percentage and unit changes in AUVs (dollars per short ton gross weight). Table VI-3 presents a variance analysis of the financial results.[4] Appendix M presents company-specific financial results information.

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

[2] The majority of U.S. producers' UAN financial results are based on U.S. GAAP. ***, which specified IFRS (International Financial Reporting Standards) as its accounting basis, was the exception. All U.S. producers reported their annual financial results for calendar-year periods. ***. Email with attachment from *** to USITC staff, July 26, 2021. Staff conducted a verification of CF Industries' financial results and related information on May 12, 2021. There were no changes to reported financial results pursuant to verification. Verification report, p. 3.

[3] U.S. producers' questionnaires, responses to III-5.

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

(*continued*...)

Figure VI-1
UAN: Share of net sales quantity of U.S. producers in 2021, by firm

* * * * * * *

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

expenses variances. Physical differences with respect to UAN generally appear to be limited to nitrogen concentration levels. Conference transcript, p. 82 (Will, Hoker). U.S. producers also indicated that there were either no changes in UAN product mix during the period or only minor changes; e.g., ***. Email with attachments from *** to USITC staff, July 27, 2021; Petition, p. I-18. In general, the utility of the Commission's variance analysis is enhanced when product mix remains the same throughout the period.

Table VI-1
UAN: Results of operations of U.S. producers, by item and period

Quantity in short tons gross weight; value in 1,000 of dollars; ratios in percent

Item	Measure	2019	2020	2021
Commercial sales	Quantity	***	***	***
Internal consumption	Quantity	***	***	***
Transfers to related firms	Quantity	***	***	***
Total net sales	Quantity	***	***	***
Commercial sales	Value	***	***	***
Internal consumption	Value	***	***	***
Transfers to related firms	Value	***	***	***
Total net sales	Value	***	***	***
COGS: Natural gas	Value	***	***	***
COGS: Other material inputs	Value	***	***	***
COGS: All raw materials	Value	***	***	***
COGS: Direct labor	Value	***	***	***
COGS: Other factory costs	Value	***	***	***
COGS: Total	Value	***	***	***
Gross profit or (loss)	Value	532,811	213,146	1,197,861
SG&A expenses	Value	136,981	111,103	138,047
Operating income or (loss)	Value	395,830	102,043	1,059,814
Interest expense	Value	***	***	***
All other expenses	Value	***	***	***
All other income	Value	***	***	***
Net income or (loss)	Value	225,436	(34,683)	977,566
Depreciation/amortization	Value	447,307	448,982	456,031
Estimated cash flow from operations	Value	672,743	414,299	1,433,597
COGS: Natural gas	Ratio to NS	***	***	***
COGS: Other material inputs	Ratio to NS	***	***	***
COGS: All raw materials	Ratio to NS	***	***	***
COGS: Direct labor	Ratio to NS	***	***	***
COGS: Other factory costs	Ratio to NS	***	***	***
COGS: Total	Ratio to NS	***	***	***
Gross profit or (loss)	Ratio to NS	***	***	***
SG&A expenses	Ratio to NS	***	***	***
Operating income or (loss)	Ratio to NS	***	***	***
Net income or (loss)	Ratio to NS	***	***	***

Table continued.

Table VI-1 Continued
UAN: Results of operations of U.S. producers, by item and period

Shares in percent; unit values in dollars per short ton gross weight; count in number of firms reporting

Item	Measure	2019	2020	2021
COGS: Natural gas	Share	23.8	20.8	32.0
COGS: Other material inputs	Share	7.4	7.1	7.4
COGS: All raw materials	Share	31.2	27.9	39.4
COGS: Direct labor	Share	7.3	7.7	7.2
COGS: Other factory costs	Share	61.5	64.4	53.4
COGS: Total	Share	100.0	100.0	100.0
Commercial sales	Unit value	***	***	***
Internal consumption	Unit value	***	***	***
Transfers to related firms	Unit value	***	***	***
Total net sales	Unit value	***	***	***
COGS: Natural gas	Unit value	***	***	***
COGS: Other material inputs	Unit value	***	***	***
COGS: All raw materials	Unit value	***	***	***
COGS: Direct labor	Unit value	***	***	***
COGS: Other factory costs	Unit value	***	***	***
COGS: Total	Unit value	***	***	***
Gross profit or (loss)	Unit value	***	***	***
SG&A expenses	Unit value	***	***	***
Operating income or (loss)	Unit value	***	***	***
Net income or (loss)	Unit value	***	***	***
Operating losses	Count	3	5	1
Net losses	Count	4	6	1
Data	Count	8	8	8

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

Table VI-2
UAN: Changes in average per short ton gross weight, between comparison periods

Change in percent

Item	2019-21	2019-20	2020-21
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	***	***	***
COGS: Natural gas	***	***	***
COGS: Other material inputs	***	***	***
COGS: All raw materials	***	***	***
COGS: Direct labor	***	***	***
COGS: Other factory costs	***	***	***
COGS: Total	***	***	***

Table continued.

Table VI-2 Continued
UAN: Changes in average per short ton gross weight, between comparison periods

Change in dollars per short ton gross weight

Item	2019-21	2019-20	2020-21
Commercial sales	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Total net sales	***	***	***
COGS: Natural gas	***	***	***
COGS: Other material inputs	***	***	***
COGS: All raw materials	***	***	***
COGS: Direct labor	***	***	***
COGS: Other factory costs	***	***	***
COGS: Total	***	***	***
Gross profit or (loss)	***	***	***
SG&A expenses	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

Table VI-3
UAN: Variance analysis on the operations of U.S. producers between comparison periods

Value in 1,000 dollars

Item	2019-21	2019-20	2020-21
Net sales price variance	***	***	***
Net sales volume variance	***	***	***
Net sales total variance	***	***	***
COGS cost variance	***	***	***
COGS volume variance	***	***	***
COGS total variance	***	***	***
Gross profit variance	***	***	***
SG&A expenses variance	***	***	***
SG&A expenses volume variance	***	***	***
SG&A expenses total variance	***	***	***
Operating income price variance	***	***	***
Operating income cost/expense variance	***	***	***
Operating income volume variance	***	***	***
Operating income total variance	***	***	***

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

Sales

UAN sales are generally made to wholesalers and retailers with only limited sales directly to end user farmers.[5] The majority of the U.S. industry's UAN sales was classified as commercial sales, accounting for *** percent of total sales quantity in 2021, followed by transfer sales to related firms (*** percent) and a small amount of internal consumption (*** percent).[6] While fluctuating somewhat, these shares remained in a similar range throughout the period. Of the *** U.S. producers reporting export shipments during the period (***), *** accounted for the majority. *** export sales were classified as commercial sales.

UAN sales reflect a combination of forward and spot sales with each category's share varying by company with most U.S. producers indicating that forward sales account for a relatively large share of total sales.[7] *** were the exceptions, reporting that their UAN sales are on a spot basis only.[8] For those U.S. producers that sell pursuant to both categories, the actual level and timing of forward sales versus spot

[5] Conference transcript, p. 29 (O'Connell).

[6] ***. *** U.S. producer questionnaire, response to II-8 (note 2). ***.

***. Email with attachments from *** to USITC staff, July 23, 2021. ***. Ibid.

[7] For some U.S. producers, forward sales represent all or almost all UAN sales. *** response to staff follow-up questions, July 24, 2021. *** response to staff follow-up questions, July 26, 2021. Email with attachments from *** to USITC staff, July 27, 2021. For others, forward sales were a consistently large share of total UAN sales. Petitioner's postconference brief, Response to Staff Questions, p. 30. Email with attachment from *** to USITC staff, July 26, 2021. Email with attachments from *** to USITC staff, July 23, 2021.

[8] *** response to staff follow-up questions, July 26, 2021. Email with attachment from *** to USITC staff, July 23, 2021.

sales vary based on factors such as current and expected market conditions.[9] From the perspective of U.S. producers, forward sales reportedly enhance working capital and improve production scheduling and logistics.[10]

Quantity

The U.S. industry's total sales quantity increased in 2020 and then declined in 2021. While magnitudes varied, U.S. producers were directionally *** throughout the period; i.e., *** U.S. producers reported increases in sales quantity in 2020 and declines in 2021. As described by U.S. producers, declines in sales quantity in 2021 reflect a combination of company-specific production-related issues, as well as external market factors.[11] [12] The revenue

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[9] CF Industries company officials indicated that, while forward sales are prevalent during the company's summer fill campaign (generally July through August), forward sales are not limited to specific times of the year and actual levels vary in each quarter. Conference transcript, pp. 93-94 (Frost), p. 94 (O'Connell), p. 95 (Will). As described in CF Industries' 2021 10-K, ". . . the level of forward sales contracts is affected by many factors including current market conditions and our customers' outlook of future market fundamentals. During periods of declining prices, customers tend to delay purchasing fertilizer in anticipation that prices in the future will be lower than the current prices." CF Industries 2021 10-K, pp. 56-57. As described by CF Industries, revenue, including forward sales, is generally recognized when control transfers to the customer, which in turn is the later of when title or risk of loss transfers to the customer. Control itself generally transfers when product is loaded onto transportation equipment or upon delivery to a customer destination. CF Industries 2021 10-K, p. 72.

[10] As described in CF Industries' 2021 10-K, "We offer our customers the opportunity to purchase products from us on a forward basis at prices and delivery dates we propose. Under our forward sales programs, customers generally make an initial cash down payment at the time of order and pay the remaining portion of the contract sales value in advance of the shipment date. Forward sales improve our liquidity by reducing our working capital needs due to the cash payments received from customers in advance of shipment of the product and allow us to improve our production scheduling and planning and the utilization of our manufacturing and distribution assets." CF Industries 2021 10-K, p. 16.

[11] ***. Submission from ***, April 18, 2022.

[12] ***. Email with attachment from *** to USITC staff, April 11, 2022. Other U.S. producers provided similar explanations regarding their lower sales volume in 2021. Email from *** to USITC staff, April 18, 2022. Email from *** to USITC staff,

(*continued*...)

section of the variance analysis (table VI-3) indicates that sales volume variances, while not unimportant, generally played a secondary role in terms of explaining changes in total sales value during the period.

Value

Table VI-2 shows that average UAN sales value (per short ton gross weight) declined in 2020 and then increased in 2021. Like sales volume, this directional pattern was reported by *** U.S. producers. In terms of explaining changes in total sales value during the period, price variances generally played the primary role (see table VI-3).

While the pattern of average UAN sales value and raw material costs were directionally the same (see table VI-2), U.S. producers reported that UAN sales value does not include a direct pass through of primary input costs.[13] [14] In terms of explaining the relatively large

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April 19, 2022. Submission from ***, April 18, 2022. Email from *** to USITC staff, April 18, 2022. Email from *** to USITC staff, April 18, 2022.

[13] Conference transcript, p. 87 (Will, Frost). Noting that in the past matching UAN prices and natural gas cost was a standard practice in the industry, a CF Industries company official stated "In 2003, gas cost in North America was both high and fairly volatile . . . {a}nd so, back in that period of time, all the forward sales were immediately backed up with purchase forward contracts of natural gas to ensure that volatility did not create a negative margin situation. Where we are today, generally speaking, is because we are among the lowest cost producers in the world, the volatility in the natural gas market is not generally sufficient to drive us into a negative margin situation . . . we do a variety of activities, whether it's basis hedging during the winter, so despite the effects of winter storm, Uri, we were able to manage through that situation just fine in terms of our gas costs or buying a month ahead or two months ahead and a certain amount of collars and swaps, and so forth. But in general, we don't tie forward sales directly to gas purchases anymore, because we are so competitive and the natural gas market is in North America, so liquid and deep and plentiful, that we can operate very differently than we did back in 2003." Conference transcript, p. 89 (Will).

[14] ***. Email with attachment from *** to USITC staff, July 26, 2021. ***

(*continued*...)

increase in average sales value in 2021, some U.S. producers simply noted that the relevant UAN reference index increased in that year.[15] Others identified various events/factors, in some instances overlapping, which contributed to higher UAN prices in 2021.[16]

U.S. producers reported a relatively wide range of company-specific UAN average sales values during the period: the lowest reported by *** (2019, 2020) and *** (2021); the highest reported by *** throughout the period (see table M-1).[17] Given the general absence of physical differences in terms of product mix at the producer level, likely factors explaining company-specific differences in average sales value were identified as "freight/logistics, the timing of the order (summer fill, late fall/winter sales, or spot sales during the spring application), the transport mode and average quantity sold, and type of sales."[18]

***. Email with attachments from *** to USITC staff, July 27, 2021. ***. Email with attachments from *** to USITC staff, July 23, 2021.

[15] Email with attachment from *** to USITC staff, April 11, 2022. Email from *** to USITC staff, April 6, 2022.

[16] Domestically, specific weather-related events during and prior to 2021 were noted as having an impact on UAN prices: windstorm/derecho in the Midwest (August 2020), which damaged the corn crop and subsequently increased the level of Spring planting in 2021 and demand for UAN; winter storm Uri (February 2021) and Hurricane Ida (August 2021) both limited UAN supply due to reduced production. In 2020, the effect of COVID 19 (directly or indirectly) caused the deferral of plant turnarounds and maintenance by a number of U.S. producers. In 2021, when a number of U.S. producers undertook the plant turnarounds and maintenance that had been deferred in 2020, overall production declined and available UAN supply was reduced. Internationally, higher natural gas costs increased UAN costs of production globally. In Europe, natural gas costs increased to the level that production was halted/curtailed. China and India also reportedly restricted nitrogen exports, further limiting global supply. Email from *** to USITC staff, April 18, 2022. Email from *** to USITC staff, April 19, 2022. Submission from ***, April 18, 2022. Email from *** to USITC staff, April 18, 2022. Email from *** to USITC staff, April 18, 2022.

[17] ***. Email with attachment from *** to USITC staff, July 23, 2021.

[18] Petitioner's post conference brief, Response to Staff Questions, p. 25. CF Industries confirmed that its sales values were reported net of freight. Conference transcript, p. 85 (Hoker).

Company-specific mix of forward versus spot sales was also noted as a likely explanatory factor.[19]

Cost of goods sold

Raw materials

Total raw material cost, the second largest component of UAN COGS, ranged from 27.9 percent of total COGS (2020) to 39.4 percent (2021).[20] Most U.S. producers identified natural gas as either the only raw material input or the primary raw material input.[21] [22] ***

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[19] As described by CF Industries, "A firm whose sales are weighted toward spot deliveries will have a unit value that more closely reflects prices in the spot market and the volumes sold at those prices. Conversely, a firm more heavily weighted toward forward sales will have a unit value that more closely reflects the prevailing prices at the time(s) at which the forward sales were made, irrespective of how spot prices vary throughout the fertilizer year." Petitioner's post conference brief, Response to Staff Questions, p. 25. Related to this pattern, CF Industries' 2020 10-K notes that ". . . fixing the selling prices of our products, often months in advance of their ultimate delivery to customers, typically causes our reported selling prices and margins to differ from spot market prices and margins available at the time of shipment. In periods of rising fertilizer prices, selling our nitrogen fertilizers on a forward basis may result in lower profit margins than if we had not sold fertilizer on a forward basis." CF Industries 2021 10-K, p. 16.

[20] The following companies reported input purchases from related suppliers: ***. ***. *** U.S. producer questionnaire, response to III-7a. ***. *** response to staff follow-up questions, July 24, 2021. ***. *** U.S. producer questionnaire, response to III-7a. ***. *** U.S. producer questionnaire, response to III-7a. ***. Email with attachments from *** to USITC staff, July 23, 2021.

[21] As described in CF Industries' 2021 10-K, "Natural gas is the principal raw material used to produce nitrogen products. We use natural gas both as a chemical feedstock and as a fuel to produce ammonia, granular urea, UAN, AN and other products. Expenditures on natural gas are a significant portion of our production costs, representing approximately 40% of our total production costs in 2021." CF Industries 2021 10-K, p. 57.

[22] While costs associated with natural gas primarily reflect the production of ammonia, relatively smaller amounts of natural gas are also used in urea production and as energy during the UAN stage of production. Conference transcript, p. 103 (Will). Based on company-specific responses to the U.S.

(*continued*...)

***, in contrast, reported that other raw materials are either the primary inputs or co-equal with natural gas.[23] For the industry as a whole, natural gas cost as share of total raw material cost ranged from 74.7 percent (2020) to 81.1 percent (2021).

Average natural gas cost declined in 2020 and then increased in 2021. While magnitudes varied, this overall pattern was reported by *** U.S. producers (see table M-1). As described by ***.[24]

While purchasing at least a portion of projected natural gas requirements and related transportation access based on forward purchase agreements appears to be commonplace,[25]

producer questionnaire, byproducts that are relevant in terms of acting as an offset to COGS are not generated during the UAN stage of production.

[23] The UAN operations of CVR Partners reflect two facilities (Coffeyville, Kansas and East Dubuque, Illinois) with the Coffeyville facility being unique inasmuch as it is the only North American nitrogen fertilizer plant that uses a petroleum coke gasification process to produce nitrogen fertilizer. CVR Partners 2020 10-K, p. 6. ***. *** U.S. producer questionnaire, responses to III-9a and III-9c. ***. *** U.S. producer questionnaire, responses to III-9a and III-9c. *** identified its primary raw material as ***. *** U.S. producer questionnaire, response to III-9c. ***. Email from *** to USITC staff, April 18, 2022.

[24] Ibid.

[25] As described in CF Industries' 2021 10-K, "We enter into agreements for a portion of our future natural gas supply and related transportation. As of December 31, 2021, our natural gas purchase agreements have terms that range from one to five years and a total minimum commitment of approximately $780 million, and our natural gas transportation agreements have terms that range from one to ten years and a total minimum commitment of approximately $165 million. Our minimum commitments to purchase and transport natural gas are based on prevailing market-based forward prices excluding reductions for plant maintenance and turnaround activities." CF Industries 2021 10-K, p. 57. Indicating that spot purchases of natural gas are also not uncommon, CVR Partners stated in its 2021 10-K (with regard to its East Dubuque, Illinois facility specifically) "We typically purchase natural gas from third parties on a spot basis and, from time to time, may enter into fixed-price forward purchase contracts." CVR 2021 10-K, p. 15.

the separate use of derivatives to hedge natural gas costs was reported by *** U.S. producer (***).[26]

Direct labor and other factory costs

Direct labor cost, the smallest component of COGS, ranged from 7.2 percent of total COGS (2021) to 7.7 percent (2020). Directionally, U.S. producers reported a mixed pattern of average direct labor cost: some reporting relatively small changes, others reporting relatively large changes.[27] For the industry as a whole, average direct labor cost fluctuated but remained in a relatively narrow range.

The largest component of UAN COGS is other factory costs, ranging from 53.4 percent of total COGS (2021) to 64.4 percent (2020). The relatively large share of total COGS accounted for by other factory costs also appears consistent with the description of UAN and related manufacturing as a capital-intensive process.[28] While some nominally variable costs such as electricity are included in other factory costs, U.S. producers described other factory costs as

[26] *** US producer questionnaire, response to III-9d-e. Based on testimony at the Commission's hearing, CF Industries' natural gas hedging is focused on the winter months. Hearing transcript, p. 151 (Frost).

[27] Likely reflecting differences in the underlying scope of manufacturing (UAN and related operations), as well as differences in reporting conventions, U.S. producers reported a relatively wide range of average direct labor costs (see table M-1). Among the larger-volume U.S. producers and in conjunction with lower sales/production volume, *** reported relatively large percentage increases in average direct labor cost in 2021. ***. *** response to staff follow-up questions, July 24, 2021. ***. Email with attachment from *** to USITC staff, July 26, 2021.

[28] Conference transcript, p. 10 (Kessler), p. 27 (Bilby), p. 52 (Will).

primarily fixed. In general, this cost structure creates a strong incentive to maximize capacity utilization in order to increase fixed cost absorption and minimize average UAN COGS.[29] [30]

On a company-specific basis, average other factory costs cover a relatively wide range and reflect a mix of directional patterns (see table M-1).[31] [32] For the industry as a whole, average other factory costs declined in 2020 and increased in 2021.

---

[29] ***. Petitioner's post conference brief (response to staff questions), p. 25. For the most part and also noting the importance of capacity utilization, other company-specific estimates of the share of fixed costs were in a similar range. *** response to staff follow-up questions, July 24, 2021. Email with attachments from *** to USITC staff, July 23, 2021. *** response to staff follow-up questions, July 24, 2021. Email with attachment from *** to USITC staff, July 26, 2021.

[30] At the Commission's hearing a CF Industries company official stated "Because UAN production is capital-intensive, U.S. producers like CF must operate their UAN plants year-round in order to be efficient." Hearing transcript, p. 42 (Bilby). Noting the particular importance of capacity utilization at the ammonia stage of production, a CF Industries company official stated at the Commission's staff conference "In general, when we think about capacity utilization, it's trying to keep the ammonia plants online as much as possible. Again, all of the nitrogen you ever make is during the ammonia process and then you're just changing its form. And in general, most of the margin that you make is the cracking of methane and converting it into ammonia. Then you make additional margin by upgrading it, but the ammonia production process is the one that we focus on from an asset utilization {perspective}. From there on, we keep the other plants operating at whatever mix is appropriate to maximize our margin opportunity based on prevailing prices in the marketplace, and so if we did end up curtailing some of our UAN production in favor of granular urea, it's not going to be such a big cost differential that you'll see, you know, other costs kind of blow out as a result of that . . . the differentials are small enough to not be highly noticeable." Conference transcript, pp. 100-101 (Will). At the Commission's hearing it was also noted that "The production of UAN is significantly more capital-intensive than urea production not only in terms of initial capital expenditure, but also in terms of maintenance and operational expense and investments in transportation and storage assets." Hearing transcript, p. 31 (Will).

[31] As described by U.S. producers, other factory costs include a number of underlying costs (e.g., ***) whose company-specific classification can vary.

[32] ***

(*continued*...)

Gross profit or loss

The U.S. industry's gross profit declined in 2020 and then increased to its highest level of the period (on an absolute basis and as a ratio to net sales value). The decline in gross profit ratio (total gross profit divided by total net sales value) in 2020 generally reflects a percentage decline in average sales value that outpaced the corresponding percentage decline in average COGS (see table VI-2), largely due to lower average raw material cost. The subsequent increase in the gross profit ratio in 2021 reflects a reversal of this pattern with the relatively large percentage increase in average sales value exceeding the percentage increase in average COGS, largely due to higher average raw material cost.

Most U.S. producers reported positive gross results of varying magnitude throughout *** of the period. *** was the *** U.S. producer reporting gross losses of varying magnitude *** the period.[33]

SG&A expenses and operating income or loss

The U.S. industry's total SG&A expenses declined in 2020 and increased in 2021, to a level somewhat higher compared to 2019. Corresponding SG&A expense ratio (total SG&A expenses divided by total net sales) increased to its highest level in 2020, in conjunction with a percentage decline in total sales value that exceeded the percentage decline in total SG&A expenses. In 2021, the SG&A expense ratio declined to its lowest level, reflecting a percentage increase in total SG&A expenses that was exceeded by a larger percentage increase in total sales value. Given the relatively modest changes in SG&A expense ratios during the period, the pattern of overall operating results, declining in 2020 and increasing in 2021, was largely determined by the pattern of gross results.[34]

***. Email with attachments from *** to USITC staff, July 27, 2021.

[33] ***. *** U.S. producer questionnaire, response to III-5. ***. Email from *** to USITC staff, April 6, 2022. USITC auditor notes (prehearing).

[34] ***. Submission from ***, April 18, 2022. USITC auditor notes (prehearing).

With regard to COVID-19 and the U.S. industry's financial performance, most U.S. producers indicated that there was no substantial impact; e.g. ***.[35] [36] *** were the *** U.S. producers that provided affirmative narrative descriptions regarding COVID-19's impact on their UAN financial performance.[37]

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

*** were the *** U.S. producers that reported interest expense with *** accounting for a slight majority of the period's cumulative total (see table VI-1). *** were also the *** U.S. producers to report other income, the large amount of other income in 2021 primarily reflecting ***.[38] [39] *** was the *** U.S. producer to report other expenses, a large share of the 2019 and 2021 amounts reflecting ***.[40]

[35] *** U.S. producer questionnaire, response to III-18. As described by a CF Industries company official, "We did have some very subtle changes in terms of our operations and the way we do load it, but we never took down time as a result of it {COVID-19 and related mitigation efforts}. If anything, our on stream factor was a little higher because we moved to major turnarounds out of 2020 and pushed them into 2021 based on the volume of contractors that we would need entering our facility. We wanted to make sure that at the time we did that maintenance work, that we could get as many people vaccinated as possible. So, it was really a safety measure, but to protect our employees, but the plants operated extremely well. In fact I believe we set . . . all-time ammonia production records and several other shipping records as well, and demand was quite strong during the year also." Conference transcript, p. 104 (Will).

[36] ***. *** U.S. producer questionnaire, response to III-10.

[37] ***. *** U.S. producer questionnaire, response to III-18. ***. *** U.S. producer questionnaire, response to III-18.

[38] *** U.S. producer questionnaire, response to III-10. ***.

[39] ***. *** U.S. producer questionnaire, response to III-10.

[40] Ibid.

While magnitudes differed, UAN operating income and net income followed the same directional pattern: declining in 2020 and increasing in 2021.

Capital expenditures and research and development expenses

Table VI-4 and table VI-5 present the U.S. producers' total capital expenditures and each firm's narrative description, respectively. Table VI-6 and table VI-7 present total research and development (R&D) expenses and each firm's narrative description, respectively.

Table VI-4
UAN: U.S. producers' capital expenditures, by firm and period

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	206,270	153,007	239,564

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

Table VI-5
UAN: Narrative description of U.S. producers' capital expenditures, by firm

Firm	Narrative
CF Industries	***
CVR Partners	***
Dyno Nobel	***
Iowa Fertilizer	***
Koch Fertilizer	***
LSB Industries	***
PCS/Agrium	***
TradeMark Nitrogen	***

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

Note.--***. Email with attachment from *** to USITC staff, July 26, 2021.

Table VI-6
UAN: U.S. producers' R&D expenses, by firm and period

Values in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

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

Note.--***.

Table VI-7
UAN: Narrative description of U.S. producers' R&D expenses, by firm

Firm	Narrative
CF Industries	***
CVR Partners	***
Dyno Nobel	***
Iowa Fertilizer	***
Koch Fertilizer	***
LSB Industries	***
PCS/Agrium	***
TradeMark Nitrogen	***

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

Note.--***.

Assets and return total net assets

Table VI-8 presents data on the U.S. producers' total net assets and corresponding ROA.[41]

Table VI-8
UAN: U.S. producers' total net assets and operating ROA, by period

Value in 1,000 dollars; ratio in percent

Item	Measure	2019	2020	2021
Net assets	Value	7,953,577	7,507,303	6,927,051
Operating ROA	Ratio	5.0	1.4	15.3

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

[41] ROA is calculated here as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. High-level allocation factors are therefore often required in order to report a total asset amount on a product-specific basis. The ability of a U.S. producer to assign total asset values to discrete product lines affects the meaningfulness of calculated company-specific ROA. ***. USITC auditor notes (prehearing).

Capital and investment

The Commission requested U.S. producers of UAN to describe any actual or potential negative effects of imports of UAN from Russia and Trinidad and Tobago on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-9 presents the number of firms reporting an impact in each category and table VI-10 provides the U.S. producers' firm-specific narrative responses.

Table VI-9
UAN: Count of firms indicating actual and anticipated negative effects of imports from subject sources on investment, growth, and development since January 1, 2019, by effect

Effect	Category	Count
Cancellation, postponement, or rejection of expansion projects	Investment	2
Denial or rejection of investment proposal	Investment	1
Reduction in the size of capital investments	Investment	3
Return on specific investments negatively impacted	Investment	3
Other investment effects	Investment	3
Any negative effects on investment	Investment	5
Rejection of bank loans	Growth	0
Lowering of credit rating	Growth	4
Problem related to the issue of stocks or bonds	Growth	4
Ability to service debt	Growth	2
Other growth and development effects	Growth	3
Any negative effects on growth and development	Growth	5
Anticipated negative effects of imports	Future	6

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

Note.--***.

Table VI-10
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Cancellation, postponement, or rejection of expansion projects	***
Cancellation, postponement, or rejection of expansion projects	***
Denial or rejection of investment proposal	***
Reduction in the size of capital investments	***
Reduction in the size of capital investments	***

Table continued.

Table VI-10 Continued
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Reduction in the size of capital investments	***
Return on specific investments negatively impacted	***
Return on specific investments negatively impacted	***
Other negative impact on investment	***
Other negative impact on investment	***
Other negative impact on investment	***

Table continued.

Table VI-10 Continued
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Lowering of credit rating	***
Lowering of credit rating	***
Lowering of credit rating	***
Lowering of credit rating	***
Problem related to the issue of stocks or bonds	***
Problem related to the issue of stocks or bonds	***
Problem related to the issue of stocks or bonds	***
Problem related to the issue of stocks or bonds	***
Ability to service debt	***

Table continued.

Table VI-10 Continued
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Ability to service debt	***
Other negative impact on growth and development	***
Other negative impact on growth and development	***
Other negative impact on growth and development	***

Table continued.

Table VI-10 Continued
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Anticipated effects of imports	***

Table continued.

Table VI-10 Continued
UAN: Narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2019

Item	Firm name and accompanying narrative response
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***
Anticipated effects of imports	***

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

Part VII: Threat considerations and information on nonsubject countries

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

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

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

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

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

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

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

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

The industry in Russia

The Commission issued foreign producers' or exporters' questionnaires to four firms believed to produce and/or export UAN from Russia.[3] Usable responses to the Commission's questionnaire were received from two firms: Acron and EuroChem.[4] These firms' exports to the United States accounted for approximately *** percent of U.S. imports of UAN from Russia in 2021, based on official Commerce import statistics. According to estimates requested of the responding producers in Russia, the production of UAN in Russia reported in questionnaires accounts for approximately *** percent of overall production of UAN in Russia during 2021. Table VII-1 presents information on the UAN operations of the responding producers and exporters in Russia.

Table VII-1
UAN: Summary data for producers in Russia, 2021

Quantity in short tons gross weight; Shares in percent

Firm	Production (short tons gross weight)	Share of reported production (percent)	Exports to the United States (short tons gross weight)	Share of reported exports to the United States (percent)	Total shipments (short tons gross weight)	Share of firm's total shipments exported to the United States (percent)
Acron	***	***	***	***	***	***
EuroChem	***	***	***	***	***	***
All firms	***	100.0	***	100.0	***	***

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 presented in third-party sources.

[4] EuroChem's response combines the data for two UAN fertilizer plants located in Russia: (1) Nevinnomyssky Azot, JSC and (2) Azot, JSC (Novomoskovsk).

Changes in operations

As presented in table VII-2 producers in Russia reported operational and organizational changes since January 1, 2019.

Table VII-2
UAN: Reported changes in operations in Russia since January 1, 2019, by firm

Item	Firm name and accompanying narrative response
Prolonged shutdowns or curtailments	***
Other	***

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

Firms were asked about the impact of the EU's antidumping duty orders imposed in 2019 on UAN from Russia, Trinidad and Tobago, and the United States on their operations.[5] *** reported no impacts resulting from the EU antidumping duty orders with respect to Russia and Trinidad and Tobago. *** further indicated that in response to the EU antidumping duty order with respect to the United States, U.S. producers redirected export shipments back to the domestic market, which in turn caused ***'s exports of UAN to the United States to decline. *** reported impacts resulting from the EU antidumping duty orders with respect to Russia, Trinidad and Tobago, and the United States. *** explained that the imposition of the EU's antidumping duty orders prompted global supply shifts in the UAN market, with more UAN from the United States and Russia being redirected to their respective home markets, as well as to other growing markets, most notably in South America and Australia.

[5] See table G-4 in appendix G for full narrative responses from foreign producers/exporters regarding the impact of the EU's antidumping duty orders.

Firms were also asked about the impact of the COVID-19 pandemic on their operations.[6] *** reported no operational changes resulting from the COVID-19 pandemic, while *** reported that end consumers in farming operated more cautiously and conservatively than in previous years.

Operations on UAN

Table VII-3 presents information on the UAN operations of the responding producers and exporters in Russia. Russian producers' capacity decreased by *** percent during 2019-20, but then increased by *** percent during 2020-21, ending *** percent lower in 2021 than in 2019.[7] Production decreased by *** percent between 2019 and 2020 then increased by *** percent between 2020 and 2021, decreasing overall by *** percent during 2019-21. Russian producers' capacity utilization decreased by *** percentage points between 2019 and 2021. Capacity and production are projected to decrease during 2021-23, while capacity utilization is projected to increase.

Russian producers' total shipments decreased *** percent during 2019-20 then increased *** percent during 2020-21, decreasing overall *** percent between 2019 and 2021. Russian producers' home market shipments accounted for roughly *** of total shipments throughout the period for which data were collected. Home market shipments increased by *** percent from 2019 to 2020 then decreased by *** from 2020 to 2021, ending *** percent lower in 2021 than in 2019. Exports to the United States accounted for *** to *** percent of total shipments during 2019-21, while exports to all other markets accounted for *** to *** percent. Exports to the United States decreased by *** percent from 2019 to 2021 while exports to all other markets fluctuated but increased by *** percent. Russian producers' home market shipments are projected to increase *** percent during 2021-23, while exports to the United States are projected to decrease *** percent and exports to all other markets are projected to fluctuate but decrease *** percent. Russian

[6] See table G-7 in appendix G for full narrative responses from foreign producers/exporters regarding the impact of the COVID-19 pandemic.

[7] *** brought a new UAN production facility online in August 2021, which increased its production capacity by *** percent during 2019-21. ***'s foreign producer/exporter questionnaire response, II-2a. However, ***'s increase in capacity was outpaced by ***'s reported decrease in capacity over the same period. ***'s capacity decreased by *** percent from 2019 to 2020 but then increased by *** percent from 2020 to 2021, ending *** percent lower in 2021 than in 2019. *** explained that its capacity to produce UAN decreased in 2020 as it increased its capacity to produce ammonium nitrate and granulated urea, which use the same semi-finished inputs as UAN. ***'s foreign producer/exporter questionnaire response, II-3c.

producers identified the following as other export markets for their UAN shipments: ***.[8]

Table VII-3
UAN: Data on industry in Russia, by period

Quantity in short tons gross weight

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Internal consumption	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Home market shipments	***	***	***	***	***
Exports to the United States	***	***	***	***	***
Exports to all other markets	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

Table continued.

[8] Acron and EuroChem's foreign producer/exporter questionnaire responses, II-8.

Table VII-3 Continued
UAN: Data on industry in Russia, by period

Shares and ratios in percent

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity utilization ratio	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***
Internal consumption share	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***
Home market shipments share	***	***	***	***	***
Exports to the United States share	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***
Export shipments share	***	***	***	***	***
Total shipments share	100.0	100.0	100.0	100.0	100.0

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

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

Alternative products

Russian producers reported *** on the same equipment and machinery used to produce UAN.

Exports

According to GTA data presented in table VII-4, the leading export markets for UAN from Russia are the United States and Australia (table VII-4). During 2021, the United States was the top export market for UAN from Russia, accounting for 79.3 percent of total exports by volume. The next largest export market for UAN from Russia in 2021 was Australia, accounting for 10.2 percent.

The Russian Government promulgated an order limiting the export of fertilizer through non-tariff quotas on November 3, 2021.[9] It stipulated that export restrictions on various

[9] Government of the Russian Federation, "On the introduction of temporary quantitative restrictions on the export of certain types of fertilizers," Decree No. 1910, November 3, 2021,

(*continued*...)

fertilizers, including UAN solution, were to exist between December 1, 2021, and May 31, 2022. The total limit was 5,900,000 metric tons across all nitrogen fertilizers covered under subheading 3102 to all users outside of the Russian Federation and the Eurasian Economic Union.[10] Further guidance was provided in an order detailing how the quotas are to be calculated and distributed among Russian producers, which was revised by two subsequent amendments in 2022.[11] A subsequent order on May 30, 2022 extended the quotas from July 1 to December 31, 2022, with the total nitrogen quota (including UAN) set at 8,314,991 metric tons.[12]

(…*continued*)
http://publication.pravo.gov.ru/Document/View/0001202111030045 (unofficial translation available as EDIS document 770599).

[10] Fertilizers originating from Russia that are exported from other Eurasian Economic Union States also count towards the maximum quota. Member states of the Eurasian Economic Union presently include: Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Russia (Cuba, Moldova, and Uzbekistan are observers).

[11] Ministry of Industry and Trade of the Russian Federation and the Ministry of Agriculture and Farms of the Russian Federation, "On approval of the procedure for calculating the volumes of the non-tariff quota for the purpose of their distribution among the participants in foreign trade activities, as well as the procedure for changing the indicated volumes, and the procedure for issuing, suspending, revoking and canceling licenses," November 19, 2021, https://rg.ru/2021/11/25/prikaz4557-781-site-dok.html (unofficial Translation, EDIS document 770601); Ministry of Industry and Trade of the Russian Federation and the Ministry of Agriculture and Farms of the Russian Federation, "On amendments to the order of the Ministry of Industry and Trade of Russia and the Ministry of Agriculture of Russia dated November 19, 2021 No. 4557 / 781 "On approval of the procedure for calculating the volume of non-tariff quota for the purpose of their distribution among participants in foreign trade activities, as well as the procedure for changing these volumes, and the procedure for issuing, suspension, revocation and cancellation of licenses," January 19, 2022, https://rg.ru/2022/01/26/prrikaz98-18-site-dok.html (unofficial translation available as EDIS document 770597); Ministry of Industry and Trade of the Russian Federation and the Ministry of Agriculture and Farms of the Russian Federation, "On amendments to Appendix No. 1 to the Order of the Ministry of Industry and Trade of the Russian Federation and the Ministry of Agriculture of the Russian Federation dated November 19, 2021 No. 4557 / 781," April 21, 2022, https://rg.ru/2022/04/27/prikaz1571-235-site-dok.html (unofficial translation available as EDIS document 770595).

[12] Government of the Russian Federation, "On the introduction of a temporary quantitative restriction on the export of certain types of fertilizers and amendments to the categories of goods for which the incomplete customs declaration and periodic customs declaration provided for by the Customs Code of the Eurasian Economic Union are not applied," May 30, 2022, http://static.government.ru/media/files/T12d3ZilR0ZAgCxtL2HsU1v5YnWqiP3t.pdf (unofficial translation available as EDIS document 774524).

Table VII-4
UAN: Exports from Russia, by destination market and by period

Quantity in short tons gross weight; Value in 1,000 dollars

Destination market	Measure	2019	2020	2021
United States	Quantity	795,483	489,241	610,202
Australia	Quantity	68,978	82,891	78,433
France	Quantity	11,640	11,220	23,067
Lithuania	Quantity	22,091	4,840	16,968
Argentina	Quantity	23,334	20,100	8,462
Romania	Quantity	13,073	17,549	6,324
Kazakhstan	Quantity	4,091	3,816	6,175
Moldova	Quantity	2,593	4,984	5,659
Bulgaria	Quantity	---	---	5,291
All other destination markets	Quantity	25,945	12,254	8,945
All destination markets	Quantity	967,229	646,895	769,527
United States	Value	303,868	149,688	466,805
Australia	Value	26,622	25,337	49,426
France	Value	5,564	3,324	19,865
Lithuania	Value	10,124	1,042	10,351
Argentina	Value	7,906	6,652	6,450
Romania	Value	5,561	5,143	5,283
Kazakhstan	Value	1,231	1,578	3,954
Moldova	Value	1,149	1,547	3,056
Bulgaria	Value	---	---	1,887
All other destination markets	Value	10,518	4,651	5,715
All destination markets	Value	372,543	198,963	572,791

Table continued.

Table VII-4 Continued
UAN: Exports from Russia, by destination market and by period

Unit value in dollars per short ton gross weight; Shares in percent

Destination market	Measure	2019	2020	2021
United States	Unit value	382	306	765
Australia	Unit value	386	306	630
France	Unit value	478	296	861
Lithuania	Unit value	458	215	610
Argentina	Unit value	339	331	762
Romania	Unit value	425	293	835
Kazakhstan	Unit value	301	414	640
Moldova	Unit value	443	310	540
Bulgaria	Unit value	---	---	357
All other destination markets	Unit value	405	380	639
All destination markets	Unit value	385	308	744
United States	Share of quantity	82.2	75.6	79.3
Australia	Share of quantity	7.1	12.8	10.2
France	Share of quantity	1.2	1.7	3.0
Lithuania	Share of quantity	2.3	0.7	2.2
Argentina	Share of quantity	2.4	3.1	1.1
Romania	Share of quantity	1.4	2.7	0.8
Kazakhstan	Share of quantity	0.4	0.6	0.8
Moldova	Share of quantity	0.3	0.8	0.7
Bulgaria	Share of quantity	---	---	0.7
All other destination markets	Share of quantity	2.7	1.9	1.2
All destination markets	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 3102.80 as reported by the Customs Committee of Russia in the Global Trade Atlas database, accessed April 19, 2022.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top, all remaining top export destinations shown in descending order of 2021 data.

The industry in Trinidad and Tobago

The Commission issued a foreign producers' or exporters' questionnaire to one firm believed to produce and/or export UAN from Trinidad and Tobago.[13] The Commission received a usable questionnaire response from one firm: MHTL.[14] MHTL's exports to the United States accounted for *** U.S. imports of UAN from Trinidad and Tobago during 2021 based on official Commerce import statistics.[15] MHTL estimates that it accounted for *** percent of overall production of UAN in Trinidad and Tobago in 2021. Table VII-5 presents information on MHTL's UAN operations in Trinidad and Tobago.

Table VII-5
UAN: Summary data for producer MHTL in Trinidad and Tobago, 2021

Quantity in short tons gross weight; Shares in percent

Firm	Production (short tons gross weight)	Share of reported production (percent)	Exports to the United States (short tons gross weight)	Share of reported exports to the United States (percent)	Total shipments (short tons gross weight)	Share of firm's total shipments exported to the United States (percent)
MHTL	***	***	***	***	***	***
All firms	***	100.0	***	100.0	***	***

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

Changes in operations

Table VII-6 presents MHTL's reported operational and organizational changes in Trinidad and Tobago since January 1, 2019.

Table VII-6
UAN: Reported changes in operations in Trinidad and Tobago since January 1, 2019, by firm

Item	Firm name and accompanying narrative response
Prolonged shutdowns or curtailments	***

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

[13] This firm was identified through a review of information submitted in the petition and presented in third-party sources.

[14] MHTL is related to ***.

[15] MHTL's exports to the United States *** U.S. imports from Trinidad and Tobago in 2021 based on official Commerce import statistics. This may be due to timing differences in shipping/Customs clearance and recordkeeping.

Firms were asked about the impact of the EU's antidumping duty orders imposed in 2019 on UAN from Russia, Trinidad and Tobago, and the United States on their operations.[16] MHTL reported that ***.

Firms were also asked about the impact of the COVID-19 pandemic on their operations.[17] MHTL reported *** resulting from the COVID-19 pandemic.

Operations on UAN

Table VII-7 presents information on MHTL's UAN operations in Trinidad and Tobago. MHTL's capacity to produce UAN increased by *** percent during 2019-20[18] and was stable during 2020-21. Capacity is projected to decrease by *** percent during 2021-22[19] before increasing back to 2021 levels in 2023. Production increased by *** percent during 2019-20 and decreased by *** percent during 2020-21, ending *** percent higher in 2021 compared to 2019. Capacity utilization was notably high throughout the period for which data were collected, ranging from *** percent in 2019 to *** percent in 2021. MHTL's production is projected to fluctuate but increase during 2021-23, while its capacity utilization is projected to increase.

MHTL's UAN operations are ***, with exports accounting for *** percent of MHTL's shipments of UAN during the period for which data were collected. MHTL's exports to the United States decreased by *** percent during 2019-20 then increased by *** percent during 2020-21, ending *** percent lower in 2021 than in 2019. Exports to the United States are projected to decrease by *** percent during 2021-22 then increase sharply by *** percent during 2022-23, returning roughly to 2021 levels. MHTL's exports to all other markets increased by *** percent during 2019-20 then decreased by *** percent during 2020-21, ending *** percent higher in 2021 than in 2019. Exports to all other markets are projected to increase by *** percent during 2021-22 then decrease by *** percent during

[16] See table G-4 in appendix G for full narrative responses from foreign producers/exporters regarding the impact of the EU's antidumping duty orders.

[17] See table G-7 in appendix G for full narrative responses from foreign producers/exporters regarding the impact of the COVID-19 pandemic.

[18] MHTL's reported capacity was lower in 2019 relative to 2020 and 2021 due to ***. MHTL's foreign producer/exporter questionnaire response, II-3c.

[19] Capacity is projected to dip in 2022 due to ***. MHTL's foreign producer/exporter questionnaire response, II-8.

2022-23. MHTL identified the following as other export markets for its UAN shipments: ***.[20]

Table VII-7
UAN: Data on industry in Trinidad and Tobago, by period

Quantity in short tons gross weight

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Internal consumption	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Home market shipments	***	***	***	***	***
Exports to the United States	***	***	***	***	***
Exports to all other markets	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

Table continued.

Table VII-7 Continued
UAN: Data on industry in Trinidad and Tobago, by period

Shares and ratios in percent

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity utilization ratio	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***
Internal consumption share	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***
Home market shipments share	***	***	***	***	***
Exports to the United States share	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***
Export shipments share	***	***	***	***	***
Total shipments share	100.0	100.0	100.0	100.0	100.0

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

[20] MHTL's foreign producer/exporter questionnaire response, II-8.

Alternative products

MHTL reported *** on the same equipment and machinery used to produce UAN.

Exports

According to GTA data presented in table VII-8, the leading export markets for UAN from Trinidad and Tobago are the United States, Canada, France, and Argentina. During 2021, the United States was the top export market for UAN from Trinidad and Tobago, accounting for 72.2 percent of total exports by volume, followed by Canada (10.2 percent), France (6.9 percent), and Argentina (6.7 percent).

Table VII-8
UAN: Exports from Trinidad and Tobago, by destination market and by period

Quantity in short tons gross weight; Value in 1,000 dollars

Destination market	Measure	2019	2020	2021
United States	Quantity	942,579	996,137	920,601
Canada	Quantity	98,242	90,009	130,391
France	Quantity	79,364	89,828	87,759
Argentina	Quantity	42,892	103,678	86,088
Spain	Quantity	36,178	30,320	35,958
Belgium	Quantity	25,794	27,155	14,813
Uruguay	Quantity	---	6,624	---
Ukraine	Quantity	7,056	---	---
All destination markets	Quantity	1,232,106	1,343,752	1,275,611
United States	Value	119,195	99,708	231,081
Canada	Value	17,390	14,913	36,792
France	Value	45,092	42,255	72,700
Argentina	Value	6,690	16,077	21,909
Spain	Value	20,601	15,550	28,148
Belgium	Value	14,421	13,475	10,031
Uruguay	Value	---	1,056	---
Ukraine	Value	3,604	---	---
All destination markets	Value	226,992	203,033	400,660

Table continued.

Table VII-8 Continued
UAN: Exports from Trinidad and Tobago, by destination market and by period

Unit value in dollars per short ton gross weight; Shares in percent

Destination market	Measure	2019	2020	2021
United States	Unit value	126	100	251
Canada	Unit value	177	166	282
France	Unit value	568	470	828
Argentina	Unit value	156	155	254
Spain	Unit value	569	513	783
Belgium	Unit value	559	496	677
Uruguay	Unit value	---	159	---
Ukraine	Unit value	511	---	---
All destination markets	Unit value	184	151	314
United States	Share of quantity	76.5	74.1	72.2
Canada	Share of quantity	8.0	6.7	10.2
France	Share of quantity	6.4	6.7	6.9
Argentina	Share of quantity	3.5	7.7	6.7
Spain	Share of quantity	2.9	2.3	2.8
Belgium	Share of quantity	2.1	2.0	1.2
Uruguay	Share of quantity	---	0.5	---
Ukraine	Share of quantity	0.6	---	---
All destination markets	Share of quantity	100.0	100.0	100.0

Source: Official imports statistics of imports from Trinidad and Tobago (constructed export statistics for Trinidad and Tobago) under HS subheading 3102.80 as reported by various statistical reporting authorities in the Global Trade Atlas database, accessed April 19, 2022.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top, all remaining top export destinations shown in descending order of 2021 data.

Subject countries combined

Table VII-9 presents summary data on UAN operations of the reporting subject producers in the subject countries.

Table VII-9
UAN: Data on the industry in subject countries, by period

Quantity in short tons gross weight

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity	***	***	***	***	***
Production	***	***	***	***	***
End-of-period inventories	***	***	***	***	***
Internal consumption	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***
Home market shipments	***	***	***	***	***
Exports to the United States	***	***	***	***	***
Exports to all other markets	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

Table continued.

Table VII-9 Continued
UAN: Data on the industry in subject countries, by period

Shares and ratios in percent

Item	2019	2020	2021	Projection 2022	Projection 2023
Capacity utilization ratio	***	***	***	***	***
Inventory ratio to production	***	***	***	***	***
Inventory ratio to total shipments	***	***	***	***	***
Internal consumption share	***	***	***	***	***
Commercial home market shipments share	***	***	***	***	***
Home market shipments share	***	***	***	***	***
Exports to the United States share	***	***	***	***	***
Exports to all other markets share	***	***	***	***	***
Export shipments share	***	***	***	***	***
Total shipments share	100.0	100.0	100.0	100.0	100.0

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

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

U.S. inventories of imported merchandise

Table VII-10 presents data on U.S. importers' reported inventories of UAN. U.S. importers' end-of-period inventories from subject sources fluctuated but increased by *** percent during 2019-21, while their end-of-period inventories from nonsubject sources fluctuated but decreased by *** percent. The ratio of U.S. importers' inventories from subject sources to U.S. shipments of imports *** at *** percent in 2019 and 2020 then increased to *** percent in 2021. The ratio of U.S. importers' inventories from nonsubject sources to U.S. shipments of imports also fluctuated, decreasing from *** percent in 2019 to *** percent in 2020 then increasing to *** percent in 2021.[21]

[21] See table D-1 and figure D-1 in appendix D for monthly data on U.S. importers' inventories of UAN.

Table VII-10
UAN: U.S. importers' inventories and their ratio to select items, by source and period

Quantity in short tons gross weight; Ratios in percent

Measure	Source	2019	2020	2021
Inventories quantity	Russia	***	***	***
Ratio to imports	Russia	***	***	***
Ratio to U.S. shipments of imports	Russia	***	***	***
Ratio to total shipments of imports	Russia	***	***	***
Inventories quantity	Trinidad and Tobago	***	***	***
Ratio to imports	Trinidad and Tobago	***	***	***
Ratio to U.S. shipments of imports	Trinidad and Tobago	***	***	***
Ratio to total shipments of imports	Trinidad and Tobago	***	***	***
Inventories quantity	Subject	***	***	***
Ratio to imports	Subject	***	***	***
Ratio to U.S. shipments of imports	Subject	***	***	***
Ratio to total shipments of imports	Subject	***	***	***
Inventories quantity	Canada	***	***	***
Ratio to imports	Canada	***	***	***
Ratio to U.S. shipments of imports	Canada	***	***	***
Ratio to total shipments of imports	Canada	***	***	***
Inventories quantity	All other	***	***	***
Ratio to imports	All other	***	***	***
Ratio to U.S. shipments of imports	All other	***	***	***
Ratio to total shipments of imports	All other	***	***	***
Inventories quantity	Nonsubject	***	***	***
Ratio to imports	Nonsubject	***	***	***
Ratio to U.S. shipments of imports	Nonsubject	***	***	***
Ratio to total shipments of imports	Nonsubject	***	***	***
Inventories quantity	All	***	***	***
Ratio to imports	All	***	***	***
Ratio to U.S. shipments of imports	All	***	***	***
Ratio to total shipments of imports	All	***	***	***

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

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of UAN from Russia and Trinidad and Tobago after December 31, 2021. Their reported data is presented in table VII-11. Of the thirteen responding U.S. importers, six indicated that they had arranged such imports. One firm reported arranged imports from Trinidad and Tobago, while the remaining five firms reported arranged imports from nonsubject sources. Arranged imports of UAN from subject sources accounted for *** percent of total arranged imports.

Table VII-11
UAN: U.S. importers' arranged imports, by source and period

Quantity in short tons gross weight

Source	Jan-Mar 2022	Apr-Jun 2022	Jul-Sept 2022	Oct-Dec 2022	Total
Russia	***	***	***	***	***
Trinidad and Tobago	***	***	***	***	***
Subject sources	***	***	***	***	***
Canada	***	***	***	***	***
All other sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Third-country trade actions

There are multiple third-countries with existing trade actions on UAN.[22] The European Union (EU) imposed antidumping duties on UAN from Russia, Trinidad and Tobago, and the United States in 2019.[23] U.S. imports are assessed a duty of €29.48 per ton, Trinidad and Tobago of €22.24 per ton, and Russia of €42.47 per ton.[24] Part of the countervailing duty calculation on Russian UAN incorporates findings of a distorted natural gas market in that country. Despite leaving the EU since their enactment, the United Kingdom appears to currently be enforcing these duties.[25] Ukraine has also imposed antidumping duties on Russian UAN since 2017 at a rate of 31.84 percent ad valorem.[26]

[22] Formerly active trade actions include EU antidumping duties on imports of UAN from Poland (1994–2004); Bulgaria (1994–2007); Lithuania (2000–2004); and Algeria, Belarus, Russia, and Ukraine (2000–2011). The duties on Polish and Lithuanian product became inactive once those countries joined the EU. Kommerskollegium, "Effects on Trade and Competition of Abolishing Anti-Dumping Measures: The European Union Experience," 2013, p. 19, https://unctad.org/system/files/non-official-document/ditc_ted_03042014Kommerskollegium2.pdf; Petitioner's postconference brief, p. 102.

[23] European Commission, "Commission Implementing Regulation (EU) 2019/1688 of 8 October 2019 Imposing a Definitive Anti-dumping Duty and Definitively Collecting the Provisional Duty Imposed on Imports of Mixtures of Urea and Ammonium Nitrate Originating in Russia, Trinidad and Tobago and the United States of America," October 9, 2019, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1688&from=EN.

[24] Except for the Russian Firms Joint Stock Companies Azot and Nevinnomyssky Azot, which are assessed €27.77 per ton. The normal EU duty rate for subject UAN is 6.5 percent ad valorem.

[25] HM Revenue & Customs, "Imports of Urea and Ammonium Nitrate Solutions from Russia, USA and Trinidad and Tobago (Anti-Dumping Duty 2361)," October 10, 2019, https://www.gov.uk/government/publications/imports-of-urea-and-ammonium-nitrate-solutions-from-

(*continued*...)

Information on nonsubject countries

UAN composes a less sizable role in most other nonsubject markets than other fertilizers. The global use and production of UAN is more geographically concentrated than other fertilizers due to the infrastructure required to distribute it.[27] The EU follows the United States in terms of capacity and consumption, together accounting for the majority of both.[28] The UAN production capacity of the EU is capable of meeting about three quarters of its constituents' demand, with the remainder depending on imports.[29] U.S. exports to the EU collapsed following the imposition of antidumping duties on U.S. product in 2019, falling to negligible levels in 2021.[30] In contrast, Russian exports to the EU during the same period increased 10.4 percent rising to 6.7 percent of total global volume, while Trinidadian exports declined slightly by 2.0 percent to a lower 10.9 percent of global volume, respectively.[31] [32]

Production in other third countries represents increasingly limited shares of the global total. Belarus has one facility that largely supports domestic consumption and exports to the EU, but is reportedly unable to have a substantial impact on U.S. imports.[33] Egypt used to supply tonnage to the EU, but the economics of their process has largely removed them from the export market in recent years.[34] The Canadian UAN industry primarily feeds internal

(…*continued*)
russia-usa-and-trinidad-and-tobago-anti-dumping-duty-2361/imports-of-urea-and-ammonium-nitrate-solutions-from-russia-usa-and-trinidad-and-tobago-anti-dumping-duty-2361.

[26] The normal Ukrainian duty rate for subject UAN is 5 percent ad valorem. Interfax-Ukraine, "Ukraine Imposes Antidumping Duties on Urea, UAN from Russia," Kyiv Post, May 19, 2017, https://www.kyivpost.com/ukraine-politics/ukraine-imposes-antidumping-duties-urea-uan-russia.html.

[27] Conference transcript, p. 119 (Frost); Hearing transcript, p. 42 (Bilby).

[28] Yamaguchi et al, "Nitrogen Solutions," Chemical Economics Handbook, October 15, 2019, pp. 13–15, https://ihsmarkit.com/products/nitrogen-chemical-economics-handbook.html; Conference transcript, p. 25 (Bilby).

[29] Yamaguchi et al, "Nitrogen Solutions," *Chemical Economics Handbook*, October 15, 2019, pp. 35, 43, and 50, https://ihsmarkit.com/products/nitrogen-chemical-economics-handbook.html.

[30] USITC DataWeb, HTS 3102.80, May 8, 2022.

[31] Global Trade Atlas database, accessed April 19, 2022.

[32] Goodman, Samuel M., "The Impact of EU Anti-dumping Duties on Urea Ammonium Nitrate Solution," USITC Working Paper ID-070, October 2020.

[33] Yamaguchi et al, "Nitrogen Solutions," *Chemical Economics Handbook*, October 15, 2019, p. 50, https://ihsmarkit.com/products/nitrogen-chemical-economics-handbook.html; Conference transcript, pp. 43 (Bilby) and 198 (McMullin); Petitioner's postconference brief, p. 78.

[34] Conference transcript, p. 198 (McMullin).

consumption with small volumes of net import trade.[35] Argentina represents one of the larger growth markets for U.S. and subject country exports, which supplement modest domestic production.[36] U.S exports to Argentina peaked at 459,000 short tons in 2020, a 12.0 percent increase from 410,000 tons in 2019, but experienced a decline of 40.7 percent to 243,000 tons in 2021, likely due to prevailing tight global supply conditions and supply chain issues. U.S. shipments to Brazil, the second leading U.S. UAN market in South America, however, increased year over year during the 2019-21 period, from 61,000 tons to 168,000 tons (175.0 percent). Mexico, the third leading market for U.S. UAN shipments in the Latin American region, experienced a year over year decline during the period similar to Argentine trends, from 143,000 tons in 2019 to 75,000 tons in 2021 (47.6 percent).[37]

Table VII-12 presents Canadian UAN export shipment data to the United States. Canada is the largest nonsubject source of UAN exports globally, with the United States accounting for the vast majority of Canadian shipments during the 2019-21 period. Shipments to the United States increased by 53,000 tons (11.9 percent) during the 2020-21 period, accompanied by a $74 per ton increase (38.6 percent) in prices. Canadian export shipments based on the data of table VII-13, in the 2020-21 period averaged about 18 percent of total U.S. global UAN imports (table VII-14), while Algeria, Lithuania, Germany, and the Netherlands were the other major nonsubject countries from which the United States imported UAN.[38] In aggregate, these countries between 2020-21 increased shipment volume to the United States by some 154,000 tons, to a total of 201,000 tons in 2021, representing about 7.0 percent of U.S. UAN imports. Thus, nonsubject countries in total accounted for about 25 percent of U.S. UAN imports. Affiliates of U.S. UAN producers CF Industries, Nutrien, and Koch Fertilizer also operate nitrogen fertilizer plants in Canada.[39]

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[35] Yamaguchi et al, "Nitrogen Solutions," *Chemical Economics Handbook*, October 15, 2019, p. 28, https://ihsmarkit.com/products/nitrogen-chemical-economics-handbook.html; Global Trade Atlas database, accessed July 23, 2021.

[36] Prices for U.S. and Trinidadian UAN were comparable in the Argentinian market in 2020, at $0.31 and $0.36 per kilogram nitrogen, respectively, while Russia's was substantially higher at $0.53 per kilogram nitrogen. Global Trade Atlas database, accessed July 23, 2021. Yamaguchi et al, "Nitrogen Solutions," *Chemical Economics Handbook*, October 15, 2019, p. 31 https://ihsmarkit.com/products/nitrogen-chemical-economics-handbook.html; Conference transcript, pp. 25 (Bilby), 108–109 (Will), 119 (Frost), 128 (Will), 130–131 (O'Connell), and 199 (Knopov, 199).

[37] USITC DataWeb, HTS 3102.80, May 8, 2022.

[38] USITC DataWeb, HTS 3102.80, May 12, 2022. Algeria, Lithuania, and Germany were absent from the U.S. UAN import market in 2020.

[39] CF Industries SEC Form 10-k, December 31, 2020, and Nutrien Fact Book 2020.

Table VII-12
UAN: Exports from Canada, by destination market and by period

Quantity in short tons gross weight; Value in 1,000 dollars

Destination market	Measure	2019	2020	2021
United States	Quantity	472,699	447,788	501,074
Australia	Quantity	181	1,627	387
New Zealand	Quantity	---	---	28
Mexico	Quantity	---	---	---
All destination markets	Quantity	472,879	449,415	501,489
United States	Value	101,530	84,626	131,237
Australia	Value	48	419	111
New Zealand	Value	---	---	8
Mexico	Value	---	---	---
All destination markets	Value	101,578	85,045	131,355

Table continued.

Table VII-12 Continued
UAN: Exports from Canada, by destination market and by period

Unit value in dollars per short ton gross weight; Shares in percent

Destination market	Measure	2019	2020	2021
United States	Unit value	215	189	262
Australia	Unit value	268	258	286
New Zealand	Unit value	---	---	285
Mexico	Unit value	---	---	---
All destination markets	Unit value	215	189	262
United States	Share of quantity	100.0	99.6	99.9
Australia	Share of quantity	0.0	0.4	0.1
New Zealand	Share of quantity	---	---	0.0
Mexico	Share of quantity	---	---	---
All destination markets	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 3102.80 as reported by Statistics Canada in the Global Trade Atlas database, accessed April 19, 2022.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top, all remaining top export destinations shown in descending order of 2021 data.

Global exports of UAN by country are detailed in table VII-13. Outside of the subject countries and the United States between 2019-21 (56.2 to 64.5 percent of total export volume in aggregate), nonsubject Canada, the Netherlands, Lithuania, and Belgium in order collectively accounted for another 22.4 to 28.8 percent of total volume. During this period of EU dumping actions on the subject countries, the U.S. volume share of exports decreased by 5.2 percentage points (about 451,000 tons), to 15.0 percent of total. Russian volume also fell 198,000 tons, but maintained an approximate 18.6 percent share of total exports, while Trinidad increased by about 7.7 percentage points (44,000 tons) to 30.8 percent of total global exports in 2021.

Average unit value prices increased by a substantial 86.0 percent ($234 per ton) during the 2019-21 period, from $272 dollars per ton in 2019 to $506 per ton in 2021.

Table VII-13
UAN: Global exports, by reporting country and by period

Quantity in short tons gross weight; Value in 1,000 dollars

Exporting country	Measure	2019	2020	2021
United States	Quantity	1,071,598	860,314	620,276
Russia	Quantity	967,229	646,895	769,527
Trinidad and Tobago	Quantity	1,232,106	1,343,752	1,275,611
Subject exporting countries	Quantity	2,199,335	1,990,646	2,045,138
Canada	Quantity	472,879	449,415	501,489
Netherlands	Quantity	295,963	322,623	305,975
Lithuania	Quantity	298,499	297,448	282,754
Belgium	Quantity	123,878	122,366	99,334
Ukraine	Quantity	---	---	67,146
Slovakia	Quantity	55,340	55,249	59,621
Germany	Quantity	32,471	50,535	47,914
Bulgaria	Quantity	19,204	4,824	37,884
Romania	Quantity	22,029	29,130	22,456
Croatia	Quantity	21,759	12,690	10,879
All other exporters	Quantity	704,251	876,409	34,045
All reporting exporters	Quantity	5,317,206	5,071,649	4,134,911
United States	Value	134,282	97,284	114,400
Russia	Value	372,543	198,963	572,791
Trinidad and Tobago	Value	226,992	203,033	400,660
Subject exporting countries	Value	599,535	401,997	973,451
Canada	Value	101,578	85,045	131,355
Netherlands	Value	158,192	148,701	283,315
Lithuania	Value	155,591	130,478	243,921
Belgium	Value	76,562	64,161	83,672
Ukraine	Value	0	---	61,086
Slovakia	Value	32,383	26,352	50,138
Germany	Value	19,021	23,323	41,134
Bulgaria	Value	12,845	3,016	52,796
Romania	Value	13,090	14,274	19,950
Croatia	Value	12,242	5,732	10,432
All other exporters	Value	130,083	117,676	25,168
All reporting exporters	Value	1,445,405	1,118,040	2,090,817

Table continued.

Table VII-13 Continued
UAN: Global exports, by reporting country and by period

Unit values in dollars per short ton gross weight; Shares in percent

Exporting country	Measure	2019	2020	2021
United States	Unit value	125	113	184
Russia	Unit value	385	308	744
Trinidad and Tobago	Unit value	184	151	314
Subject exporting countries	Unit value	273	202	476
Canada	Unit value	215	189	262
Netherlands	Unit value	535	461	926
Lithuania	Unit value	521	439	863
Belgium	Unit value	618	524	842
Ukraine	Unit value	---	---	910
Slovakia	Unit value	585	477	841
Germany	Unit value	586	462	859
Bulgaria	Unit value	669	625	1,394
Romania	Unit value	594	490	888
Croatia	Unit value	563	452	959
All other exporters	Unit value	185	134	739
All reporting exporters	Unit value	272	220	506
United States	Share of quantity	20.2	17.0	15.0
Russia	Share of quantity	18.2	12.8	18.6
Trinidad and Tobago	Share of quantity	23.2	26.5	30.8
Subject exporting countries	Share of quantity	41.4	39.3	49.5
Canada	Share of quantity	8.9	8.9	12.1
Netherlands	Share of quantity	5.6	6.4	7.4
Lithuania	Share of quantity	5.6	5.9	6.8
Belgium	Share of quantity	2.3	2.4	2.4
Ukraine	Share of quantity	---	---	1.6
Slovakia	Share of quantity	1.0	1.1	1.4
Germany	Share of quantity	0.6	1.0	1.2
Bulgaria	Share of quantity	0.4	0.1	0.9
Romania	Share of quantity	0.4	0.6	0.5
Croatia	Share of quantity	0.4	0.3	0.3
All other exporters	Share of quantity	13.2	17.3	0.8
All reporting exporters	Share of quantity	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 3102.80 reported by various national statistical authorities in the Global Trade Atlas database and official global imports statistics from Oman under HS subheading 3102.80 as reported by UN Comtrade in the Global Trade Atlas database, accessed April 19, 2022.

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---". United States is shown at the top followed by the countries under investigation, all remaining top exporting countries in descending order of 2021 data.

Global UAN imports by country as reported by Global Trade Atlas are detailed in table VII-14. Nonsubject country import volume during the 2019-21 period shifted marginally (3.0 percent) from 3.3 million tons in 2019, to 3.2 million tons in 2021. Subject country imports are miniscule as reported, however leading U.S. import volume declined during the period, from 3.1 million tons, to 2.8 million tons in 2021 (9.7 percent). During this period, U.S. import market share declined 2.5 percentage points, from 48.9 percent to 46.3 percent. The fluctuations in apparent UAN import market demand may be influenced by multiple factors including, but not limited to a perception of tight fertilizer market balance at the global level, pricing, trade sanctions, weather, energy prices, geopolitical and other issues.[40] [41] Average UAN unit pricing for all reporting countries declined from $247 per ton in 2019 to $212 per ton in 2020 (14.0 percent), but increased significantly to $386 per ton in 2021 (81.9 percent). Overall, pricing during the 2019-21 period increased by a significant 56.4 percent.

On a regional basis, nonsubject Latin American import volume reported by leading Argentina, together with Brazil and Uruguay, increased by 19.4 percentage points, from 11.7 percent of total global imports in 2019, to 15.0 percent in 2021. The EU import share led by France, together with Belgium, and the U.K., during the same period, however, declined 22.5 percent, from 15.5 percent of total imports, to 13.0 percent in 2021, indicative of trade and other issues.[42] Australian, Canadian and Ukrainian import volume in aggregate experienced the highest growth (16.7 percent), during the period, increasing from 14.0 percent to 17.6 percent of total global UAN imports.

[40] Conference transcript, pp. 7-9 (Kessler); pp. 12, 15 (Rosenthal); pp. 20, 121, 126 (Will); p. 193 (Wessel); p. 192 (O'Neil), p. 201 (McMullen).

[41] The Fertilizer Institute, "Statement on Russia-Ukraine Conflict," March 2, 2022, www.tfi.org/content/statement-russia-ukraine-conflict, retrieved March 2022.

[42] The Fertilizer Institute, "The Complex Truth About Fertilizer Prices," December 10, 2021, www.tfi.org/content/complex-truth-about-fertilizer-prices, retrieved December 2021.

Table VII-14
UAN: Global imports, by reporting country and by period

Quantity in short tons gross weight; Value in 1,000 dollars

Importing country	Measure	2019	2020	2021
United States	Quantity	3,126,212	2,632,629	2,754,341
Russia	Quantity	---	42	14
Trinidad and Tobago	Quantity	---	---	---
Subject importing countries	Quantity	---	42	14
Argentina	Quantity	632,056	752,501	654,083
France	Quantity	672,216	654,325	552,900
Australia	Quantity	350,900	436,834	511,412
Canada	Quantity	455,854	286,751	393,851
Brazil	Quantity	61,715	149,569	156,906
Ukraine	Quantity	87,044	53,937	137,855
Belgium	Quantity	152,811	163,361	115,426
United Kingdom	Quantity	169,123	175,021	102,570
Uruguay	Quantity	55,308	69,090	83,313
All other importers	Quantity	631,499	531,268	480,640
All reporting importers	Quantity	6,394,739	5,905,328	5,943,311
United States	Value	470,261	320,040	672,274
Russia	Value	---	16	73
Trinidad and Tobago	Value	---	---	---
Subject importing countries	Value	---	16	73
Argentina	Value	107,480	118,375	205,658
France	Value	338,171	297,944	455,481
Australia	Value	52,908	59,673	125,525
Canada	Value	77,335	47,808	110,157
Brazil	Value	7,561	16,158	36,173
Ukraine	Value	50,091	24,375	128,647
Belgium	Value	79,784	67,643	96,898
United Kingdom	Value	91,011	81,598	96,244
Uruguay	Value	10,500	11,550	26,024
All other importers	Value	294,189	208,502	342,182
All reporting importers	Value	1,579,292	1,253,682	2,295,337

Table continued.

Table VII-14 Continued
UAN: Global imports, by reporting country and by period

Unit values in dollars per short ton gross weight; Shares in percent

Importing country	Measure	2019	2020	2021
United States	Unit value	150	122	244
Russia	Unit value	---	378	5,117
Trinidad and Tobago	Unit value	---	---	---
Subject importing countries	Unit value	---	378	5,117
Argentina	Unit value	170	157	314
France	Unit value	503	455	824
Australia	Unit value	151	137	245
Canada	Unit value	170	167	280
Brazil	Unit value	123	108	231
Ukraine	Unit value	575	452	933
Belgium	Unit value	522	414	839
United Kingdom	Unit value	538	466	938
Uruguay	Unit value	190	167	312
All other importers	Unit value	466	392	712
All reporting importers	Unit value	247	212	386
United States	Share of quantity	48.9	44.6	46.3
Russia	Share of quantity	---	0.0	0.0
Trinidad and Tobago	Share of quantity	---	---	---
Subject importing countries	Share of quantity	---	0.0	0.0
Argentina	Share of quantity	9.9	12.7	11.0
France	Share of quantity	10.5	11.1	9.3
Australia	Share of quantity	5.5	7.4	8.6
Canada	Share of quantity	7.1	4.9	6.6
Brazil	Share of quantity	1.0	2.5	2.6
Ukraine	Share of quantity	1.4	0.9	2.3
Belgium	Share of quantity	2.4	2.8	1.9
United Kingdom	Share of quantity	2.6	3.0	1.7
Uruguay	Share of quantity	0.9	1.2	1.4
All other importers	Share of quantity	9.9	9.0	8.1
All reporting importers	Share of quantity	100.0	100.0	100.0

Source: Official imports statistics under HS subheading 3102.80 as reported by various national statistical authorities in the Global Trade Atlas database, accessed April 19, 2022.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as “---“. United States is shown at the top followed by the countries under investigation, all remaining top exporting countries in descending order of 2021 data.

APPENDIX A

FEDERAL REGISTER NOTICES

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

Citation	Title	Link
86 FR 36158, July 8, 2021	*Urea Ammonium Nitrate Solutions from Russia and Trinidad and Tobago; Institution of Anti-Dumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.govinfo.gov/content/pkg/FR-2021-07-08/pdf/2021-14486.pdf
86 FR 40008, July 26, 2021	*Urea Ammonium Nitrate Solutions From the Russian Federation and the Republic of Trinidad and Tobago: Initiation of Less-Than-Fair-Value Investigations*	https://www.govinfo.gov/content/pkg/FR-2021-07-26/pdf/2021-15889.pdf
86 FR 40004, July 26, 2021	*Urea Ammonium Nitrate Solutions From the Russian Federation and the Republic of Trinidad and Tobago: Initiation of Countervailing Duty Investigations*	https://www.govinfo.gov/content/pkg/FR-2021-07-26/pdf/2021-15890.pdf
86 FR 46881, August 20, 2021	*Urea Ammonium Nitrate Solutions From Russia and Trinidad and Tobago*	https://www.govinfo.gov/content/pkg/FR-2021-08-20/pdf/2021-17833.pdf
86 FR 68635, December 3, 2021	*Urea Ammonium Nitrate Solutions From the Russian Federation: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With the Final Antidumping Duty Determination*	https://www.govinfo.gov/content/pkg/FR-2021-12-03/pdf/2021-26313.pdf
86 FR 68640, December 3, 2021	*Urea Ammonium Nitrate Solutions From the Republic of Trinidad and Tobago: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With the Final Antidumping Duty Determination*	https://www.govinfo.gov/content/pkg/FR-2021-12-03/pdf/2021-26314.pdf
87 FR 5783, February 2, 2022	*Urea Ammonium Nitrate Solutions From the Republic of Trinidad and Tobago: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2022-02-02/pdf/2022-02060.pdf

Citation	Title	Link
87 FR 5785, February 2, 2022	*Urea Ammonium Nitrate Solutions From the Russian Federation: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2022-02-02/pdf/2022-02061.pdf
87 FR 10241, February 23, 2022	*Urea Ammonium Nitrate (UAN) Solutions From Russia and Trinidad and Tobago Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations*	https://www.govinfo.gov/content/pkg/FR-2022-02-23/pdf/2022-03785.pdf
87 FR 12935, March 8, 2022	*Urea Ammonium Nitrate Solutions From the Republic of Trinidad and Tobago: Amended Preliminary Determination of Sales at Less Than Fair Value*	https://www.govinfo.gov/content/pkg/FR-2022-03-08/pdf/2022-04887.pdf
87 FR 37824, June 24, 2022	*Urea Ammonium Nitrate Solutions From the Republic of Trinidad and Tobago: Final Affirmative Determination of Sales at Less Than Fair Value*	https://www.govinfo.gov/content/pkg/FR-2022-06-24/pdf/2022-13567.pdf
87 FR 37828, June 24, 2022	*Urea Ammonium Nitrate Solutions From the Republic of Trinidad and Tobago: Final Affirmative Countervailing Duty Determination*	https://www.govinfo.gov/content/pkg/FR-2022-06-24/pdf/2022-13568.pdf
87 FR 37831, June 24, 2022	*Urea Ammonium Nitrate Solutions From the Russian Federation: Final Affirmative Determination of Sales at Less Than Fair Value*	https://www.govinfo.gov/content/pkg/FR-2022-06-24/pdf/2022-13566.pdf
87 FR 37836, June 24, 2022	*Urea Ammonium Nitrate Solutions From the Russian Federation: Final Affirmative Countervailing Duty Determination*	https://www.govinfo.gov/content/pkg/FR-2022-06-24/pdf/2022-13565.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared in the United States International Trade Commission's hearing via videoconference:

Subject:	Urea Ammonium Nitrate (UAN) Solutions from Russia and Trinidad and Tobago
Inv. Nos.:	701-TA-668-669 and 731-TA-1565-1566 (Final)
Date and Time:	June 16, 2022 - 9:30 a.m.

CONGRESSIONAL APPEARANCES:

The Honorable Austin Scott, U.S. Representative, 8th District, Georgia

The Honorable Randy Feenstra, U.S. Representative, 4th District, Iowa

The Honorable Tracey Mann, U.S. Representative, 1st District, Kansas

OPENING REMARKS:

In Support of Imposition (**Jeffrey I. Kessler**, Wilmer Cutler Pickering Hale and Dorr LLP)
In Opposition to Imposition (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)

In Support of Imposition of
Antidumping and Countervailing Duty Orders:

Wilmer Cutler Pickering Hale and Dorr LLP
Washington, DC
on behalf of

CF Industries Nitrogen, LLC
Terra Nitrogen, Limited Partnership
Terra International (Oklahoma) LLC
(collectively "CF")

Tony Will, President and Chief Executive Officer, CF

Bert Frost, Senior Vice President, Sales and Marketing, CF

Frank O'Connell, Vice President of Product Management, UAN/AN, CF

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

David Bilby, Director, Market Research, Planning, and Analysis, CF

Richard Hoker, Vice President, Corporate Controller, CF

Linda Dempsey, Vice President, Public Affairs, CF

Andrew Szamosszegi, Principal, Capital Trade, Inc.

Thomas Rogers, Principal, Capital Trade, Inc.

Brian Westenbroek, Project Manager, Capital Trade, Inc.

David Ross)
Jeffrey I. Kessler)
) – OF COUNSEL
Patrick McLain)
Stephanie Hartmann)

In Opposition to Imposition of
Antidumping and Countervailing Duty Orders:

Steptoe & Johnson LLP
Washington, DC
on behalf of

Helm Fertilizer Corporation
Methanol Holdings (Trinidad) Ltd.

Michael Peyton, President, Helm Fertilizer Corporation

Hanna Sukhu-Maharaj, Marketing and Logistics Manager,
Methanol Holdings (Trinidad) Ltd.

Vishard Chandool, Technical and Commercial Assurance Manager,
Methanol Holdings (Trinidad) Ltd.

Ravi Cardinez, Financial Controller, Methanol Holdings (Trinidad) Ltd.

Eric C. Emerson)
Zhu (Judy) Wang) – OF COUNSEL
Zachary Simmons)

In Opposition to Imposition of
Antidumping and Countervailing Duty Orders (continued):

Kelley Drye & Warren LLP
Washington, DC
on behalf of

International Raw Materials Ltd. ("IRM")

W.P. O'Neill, President, International Raw Materials Ltd.

Brooke McMullin, Vice President, International Raw Materials Ltd.

Brad Hudgens, Economist, Georgetown Economic Services LLC

Paul C. Rosenthal)
) – OF COUNSEL
Elizabeth C. Johnson)

Hogan Lovells US LLP
Washington, DC
on behalf of

Gavilon Fertilizer, LLC

Brian Harlander, Former President, Gavilon Fertilizer, LLC

H. Deen Kaplan)
) – OF COUNSEL
Michael G. Jacobson)

In Opposition to Imposition of
Antidumping and Countervailing Duty Orders (continued):

Hogan Lovells US LLP
Washington, DC
on behalf of

National Corn Growers Association

Andy Jobman, President, Nebraska Corn Growers Association; and Chair, Stewardship Action Team at the National Corn Growers Association

Angus R. Kelly, Director of Public Policy, National Corn Growers Association

James Dougan, Partner, ION Economics, LLC

Rebecca Tuzel, Economic Consultant, ION Economics, LLC

Jared R. Wessel)
) – OF COUNSEL
Michael G. Jacobson)

Mayer Brown LLP
Washington, DC
on behalf of

Public Joint Stock Company Acron
Acron USA Inc.

Viacheslav Knopov, President, Acron USA Inc.

Sydney Mintzer)
) – OF COUNSEL
Ellen Aldin)

In Opposition to Imposition of
Antidumping and Countervailing Duty Orders (continued):

Squire Patton Boggs (US) LLP
Washington, DC
on behalf of

EuroChem North America Corp.

Donal Lambert, President and Secretary, EuroChem North America, Corp.

Ben Riensche, Farmer, Blue Diamond Farming Company

Wes Shoemyer, Farmer, Shoemyer Family Farm

Peter Koenig)
) – OF COUNSEL
Jeremy Dutra)

REBUTTAL/CLOSING REMARKS:

In Support of Imposition (**Patrick McLain**, Wilmer Cutler Pickering Hale and Dorr LLP)
In Opposition to Imposition (**Eric C. Emerson**, Steptoe & Johnson LLP; and **Jared R. Wessel**, Hogan Lovells US LLP)

-END-

APPENDIX C

SUMMARY DATA

Table C-1

UAN: Summary data concerning the U.S. market, by period

Quantity=short tons gross weight; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton gross weight; Productivity=short tons gross weight per 1,000 hours; Period changes=percent--exceptions noted

	Reported data			Period changes		
	Calendar year			Comparison years		
	2019	2020	2021	2019-21	2019-20	2020-21
U.S. consumption quantity:						
Amount	14,781,370	15,114,264	14,357,765	▼(2.9)	▲2.3	▼(5.0)
Producers' share (fn1)	78.6	82.3	80.8	▲2.2	▲3.7	▼(1.5)
Importers' share (fn1):						
Russia	11.5	7.8	8.1	▼(3.4)	▼(3.7)	▲0.3
Trinidad and Tobago	6.4	6.6	6.4	▲0.0	▲0.2	▼(0.2)
Subject sources	17.9	14.4	14.5	▼(3.4)	▼(3.5)	▲0.1
Canada	3.1	2.8	3.3	▲0.2	▼(0.3)	▲0.5
All other sources	0.4	0.5	1.4	▲1.0	▲0.1	▲0.9
Nonsubject sources	3.5	3.3	4.7	▲1.2	▼(0.2)	▲1.4
All import sources	21.4	17.7	19.2	▼(2.2)	▼(3.7)	▲1.5
U.S. consumption value:						
Amount	2,653,885	2,147,641	3,738,176	▲40.9	▼(19.1)	▲74.1
Producers' share (fn1)	79.2	81.9	80.6	▲1.4	▲2.7	▼(1.3)
Importers' share (fn1):						
Russia	11.0	7.6	7.6	▼(3.4)	▼(3.4)	▼(0.0)
Trinidad and Tobago	5.7	6.2	6.8	▲1.1	▲0.5	▲0.6
Subject sources	16.7	13.8	14.4	▼(2.3)	▼(2.9)	▲0.6
Canada	3.6	3.7	3.3	▼(0.3)	▲0.1	▼(0.4)
All other sources	0.4	0.6	1.7	▲1.2	▲0.1	▲1.1
Nonsubject sources	4.1	4.3	4.9	▲0.9	▲0.2	▲0.7
All import sources	20.8	18.1	19.4	▼(1.4)	▼(2.7)	▲1.3
U.S. imports from:						
Russia:						
Quantity	1,706,932	1,186,296	1,165,275	▼(31.7)	▼(30.5)	▼(1.8)
Value	291,249	163,225	283,924	▼(2.5)	▼(44.0)	▲73.9
Unit value	$171	$138	$244	▲42.8	▼(19.4)	▲77.1
Ending inventory quantity	***	***	***	▲***	▼***	▲***
Trinidad and Tobago:						
Quantity	942,579	996,137	920,601	▼(2.3)	▲5.7	▼(7.6)
Value	152,310	134,105	256,016	▲68.1	▼(12.0)	▲90.9
Unit value	$162	$135	$278	▲72.1	▼(16.7)	▲106.6
Ending inventory quantity	***	***	***	▼***	▲***	▼***
Subject sources:						
Quantity	2,649,511	2,182,433	2,085,876	▼(21.3)	▼(17.6)	▼(4.4)
Value	443,559	297,330	539,940	▲21.7	▼(33.0)	▲81.6
Unit value	$167	$136	$259	▲54.6	▼(18.6)	▲90.0
Ending inventory quantity	***	***	***	▲***	▼***	▲***

Table continued.

Table C-1 continued

UAN: Summary data concerning the U.S. market, by period

Quantity=short tons gross weight; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton gross weight; Productivity=short tons gross weight per 1,000 hours; Period changes=percent--exceptions noted

	Reported data			Period changes		
	Calendar year			Comparison years		
	2019	2020	2021	2019-21	2019-20	2020-21
Canada:						
Quantity	452,234	422,437	467,542	▲3.4	▼(6.6)	▲10.7
Value	96,507	79,272	122,922	▲27.4	▼(17.9)	▲55.1
Unit value	$213	$188	$263	▲23.2	▼(12.1)	▲40.1
Ending inventory quantity	***	***	***	▼***	▼***	▼***
All other sources:						
Quantity	58,131	69,830	200,923	▲245.6	▲20.1	▲187.7
Value	11,860	12,467	61,932	▲422.2	▲5.1	▲396.8
Unit value	$204	$179	$308	▲51.1	▼(12.5)	▲72.6
Ending inventory quantity	***	***	***	▲***	▼***	▲***
Nonsubject sources:						
Quantity	510,366	492,267	668,465	▲31.0	▼(3.5)	▲35.8
Value	108,367	91,740	184,854	▲70.6	▼(15.3)	▲101.5
Unit value	$212	$186	$277	▲30.2	▼(12.2)	▲48.4
Ending inventory quantity	***	***	***	▼***	▼***	▲***
All import sources:						
Quantity	3,159,877	2,674,700	2,754,341	▼(12.8)	▼(15.4)	▲3.0
Value	551,926	389,069	724,794	▲31.3	▼(29.5)	▲86.3
Unit value	$175	$145	$263	▲50.7	▼(16.7)	▲80.9
Ending inventory quantity	***	***	***	▼***	▼***	▲***
U.S. producers':						
Average capacity quantity	15,936,181	16,065,941	16,105,941	▲1.1	▲0.8	▲0.2
Production quantity	12,748,767	12,981,527	12,413,965	▼(2.6)	▲1.8	▼(4.4)
Capacity utilization (fn1)	80.0	80.8	77.1	▼(2.9)	▲0.8	▼(3.7)
U.S. shipments:						
Quantity	11,621,493	12,439,564	11,603,424	▼(0.2)	▲7.0	▼(6.7)
Value	2,101,959	1,758,572	3,013,382	▲43.4	▼(16.3)	▲71.4
Unit value	$181	$141	$260	▲43.6	▼(21.8)	▲83.7
Export shipments:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▲***	▼***	▲***
Unit value	***	***	***	▲***	▼***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***
Inventories/total shipments (fn1)	***	***	***	▲***	▼***	▲***
Production workers	1,447	1,461	1,473	▲1.8	▲1.0	▲0.8
Hours worked (1,000s)	3,091	3,083	3,124	▲1.1	▼(0.3)	▲1.3
Wages paid ($1,000)	173,061	184,304	191,756	▲10.8	▲6.5	▲4.0
Hourly wages (dollars per hour)	$55.99	$59.78	$61.38	▲9.6	▲6.8	▲2.7
Productivity	4,124	4,211	3,974	▼(3.7)	▲2.1	▼(5.6)
Unit labor costs	$13.57	$14.20	$15.45	▲13.8	▲4.6	▲8.8

Table continued.

Table C-1 continued

UAN: Summary data concerning the U.S. market, by period

Quantity=short tons gross weight; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per short ton gross weight; Productivity=short tons gross weight per 1,000 hours; Period changes=percent--exceptions noted

	Reported data			Period changes		
	Calendar year			Comparison years		
	2019	2020	2021	2019-21	2019-20	2020-21
Net sales:						
Quantity	***	***	***	▼***	▲***	▼***
Value	***	***	***	▲***	▼***	▲***
Unit value	***	***	***	▲***	▼***	▲***
Cost of goods sold (COGS)	***	***	***	▲***	▼***	▲***
Gross profit or (loss) (fn2)	532,811	213,146	1,197,861	▲124.8	▼(60.0)	▲462.0
SG&A expenses	136,981	111,103	138,047	▲0.8	▼(18.9)	▲24.3
Operating income or (loss) (fn2)	395,830	102,043	1,059,814	▲167.7	▼(74.2)	▲938.6
Net income or (loss) (fn2)	225,436	(34,683)	977,566	▲333.6	▼***	▲***
Unit COGS	***	***	***	▲***	▼***	▲***
Unit SG&A expenses	***	***	***	▲***	▼***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
Unit net income or (loss) (fn2)	***	***	***	▲***	▼***	▲***
COGS/sales (fn1)	***	***	***	▼***	▲***	▼***
Operating income or (loss)/sales (fn1)	***	***	***	▲***	▼***	▲***
Net income or (loss)/sales (fn1)	***	***	***	▲***	▼***	▲***
Capital expenditures	206,270	153,007	239,564	▲16.1	▼(25.8)	▲56.6
Research and development expenses	***	***	***	▼***	▼***	▼***
Net assets	7,953,577	7,507,303	6,927,051	▼(12.9)	▼(5.6)	▼(7.7)

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.

Source: Compiled from data submitted in response to Commission questionnaires and official U.S. import statistics of the U.S. Department of Commerce Census Bureau using HTS statistical reporting number 3102.80.0000, accessed on June 23, 2022. Imports are based on the imports for consumption data series. Import value data reflect landed duty-paid values. 508-compliant tables containing these data are contained in parts III, IV, VI, and VII of this report.

APPENDIX D

STORAGE CAPACITIES AND INVENTORIES

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Table D-1
UAN: U.S. producers' and U.S. importers' inventories, by source and month

Quantity in short tons gross weight

Year	Month	U.S. producers	Russia	Trinidad and Tobago	Subject sources
2019	January	***	***	***	***
2019	February	***	***	***	***
2019	March	***	***	***	***
2019	April	***	***	***	***
2019	May	***	***	***	***
2019	June	***	***	***	***
2019	July	***	***	***	***
2019	August	***	***	***	***
2019	September	***	***	***	***
2019	October	***	***	***	***
2019	November	***	***	***	***
2019	December	***	***	***	***
2020	January	***	***	***	***
2020	February	***	***	***	***
2020	March	***	***	***	***
2020	April	***	***	***	***
2020	May	***	***	***	***
2020	June	***	***	***	***
2020	July	***	***	***	***
2020	August	***	***	***	***
2020	September	***	***	***	***
2020	October	***	***	***	***
2020	November	***	***	***	***
2020	December	***	***	***	***
2021	January	***	***	***	***
2021	February	***	***	***	***
2021	March	***	***	***	***
2021	April	***	***	***	***
2021	May	***	***	***	***
2021	June	***	***	***	***
2021	July	***	***	***	***
2021	August	***	***	***	***
2021	September	***	***	***	***
2021	October	***	***	***	***
2021	November	***	***	***	***
2021	December	***	***	***	***

Table continued.

Table D-1 Continued
UAN: U.S. producers' and U.S. importers' inventories, by source and month

Quantity in short tons gross weight

Year	Month	Canada	All other sources	Nonsubject sources	All import sources
2019	January	***	***	***	***
2019	February	***	***	***	***
2019	March	***	***	***	***
2019	April	***	***	***	***
2019	May	***	***	***	***
2019	June	***	***	***	***
2019	July	***	***	***	***
2019	August	***	***	***	***
2019	September	***	***	***	***
2019	October	***	***	***	***
2019	November	***	***	***	***
2019	December	***	***	***	***
2020	January	***	***	***	***
2020	February	***	***	***	***
2020	March	***	***	***	***
2020	April	***	***	***	***
2020	May	***	***	***	***
2020	June	***	***	***	***
2020	July	***	***	***	***
2020	August	***	***	***	***
2020	September	***	***	***	***
2020	October	***	***	***	***
2020	November	***	***	***	***
2020	December	***	***	***	***
2021	January	***	***	***	***
2021	February	***	***	***	***
2021	March	***	***	***	***
2021	April	***	***	***	***
2021	May	***	***	***	***
2021	June	***	***	***	***
2021	July	***	***	***	***
2021	August	***	***	***	***
2021	September	***	***	***	***
2021	October	***	***	***	***
2021	November	***	***	***	***
2021	December	***	***	***	***

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

Figure D-1
UAN: U.S. producers' and U.S. importers' inventories, by source and month

* * * * * * *

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

Table D-2
UAN: U.S. producers' narratives explaining their inventory balances, by year

Firm	Year	Narrative explanation
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***

Firm	Year	Narrative explanation
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***

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

Table D-3
UAN: U.S. importers' narratives explaining their inventory balances, by year

Firm	Year	Source	Narrative explanation
***	2019	Russia	***
***	2020	Russia	***
***	2021	Russia	***
***	2019	Russia	***
***	2020	Russia	***
***	2021	Russia	***
***	2019	Canada	***
***	2020	Canada	***
***	2021	Canada	***
***	2019	Russia	***
***	2021	Russia	***
***	2019	All other sources	***
***	2020	All other sources	***
***	2021	All other sources	***
***	2020	Russia	***
***	2019	Trinidad and Tobago	***
***	2020	Trinidad and Tobago	***
***	2021	Trinidad and Tobago	***
***	2019	Russia	***

Firm	Year	Source	Narrative explanation
***	2019	Russia	***
***	2020	Russia	***
***	2021	Russia	***
***	2019	Canada	***
***	2020	Canada	***
***	2021	Canada	***
***	2019	Canada	***
***	2020	Canada	***
***	2021	Canada	***

Firm	Year	Source	Narrative explanation
***	2020	Russia	***
***	2021	Russia	***

Firm	Year	Source	Narrative explanation
***	2019	Russia	***
***	2020	Russia	***
***	2021	Russia	***
***	2019	All other sources	***
***	2020	All other sources	***
***	2021	All other sources	***

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

Table D-4
UAN: U.S. importers' narratives explaining their inventory levels

Firm	Inventory levels deviated from historical norms	Narrative explanation
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

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

Table D-5
UAN: U.S. producers' end-of-period storage capacity, inventories, and storage utilization rate, by period

Quantity in short tons gross weight; Storage capacity utilization in percent

Item	2019	2020	2021
Storage capacity	***	***	***
Inventories: U.S. produced	***	***	***
Inventories: Imports	***	***	***
Inventories: Combined	***	***	***
Storage utilization	***	***	***

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

Note: End-of-period storage capacity and inventories represent levels as of December 31 of a given year. Inventories of imports of UAN reflect inventories reported in U.S. importer questionnaire responses by firms that operate as both U.S. producers and U.S. importers or are related to and share storage capacity with U.S. producers. These inventories were reported by the following: ***.

Table D-6
UAN: U.S. importers' end-of-period storage capacity, inventories, and storage capacity utilization rate, by period

Quantity in short tons gross weight; Storage capacity utilization in percent

Item	2019	2020	2021
Storage capacity	***	***	***
Inventories: Imports	***	***	***
Inventories: U.S. produced	***	***	***
Inventories: Mixed	***	***	***
Inventories: Combined	***	***	***
Storage capacity utilization	***	***	***

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

Note: End-of-period storage capacity and inventories represent levels as of December 31 for a given year. Inventories of imports of UAN reflect inventories reported in U.S. importer questionnaire responses. These inventories do not include data reported by ***. Inventories of domestically produced UAN reflect inventories reported in U.S. producer questionnaire responses by firms that operate as both U.S. producers and U.S. importers. These inventories were reported by the following: ***. Inventories of mixed UAN reflect inventories reported in U.S. purchaser questionnaire responses by firms that operate as both U.S. importers and U.S. purchasers. Inventory data collected in U.S. purchaser questionnaires are not separated by source. These inventories were reported by the following: ***.

Table D-7
UAN: U.S. purchasers' end-of-period storage capacity, inventories, and storage capacity utilization rate, by period

Quantity in short tons gross weight; Storage capacity utilization in percent

Item	2019	2020	2021
End-of-period storage capacity	5,634,811	5,763,492	5,974,675
End-of-period inventory quantity	2,701,214	2,826,098	2,595,578
End-of-period storage capacity utilization	47.9	49.0	43.4

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

Note: End-of-period storage capacity and inventories represent levels as of December 31 of a given year.

Table D-8
UAN: U.S. purchasers' inventories, by period

Period	Inventories
2019 Q1	***
2019 Q2	***
2019 Q3	***
2019 Q4	***
2020 Q1	***
2020 Q2	***
2020 Q3	***
2020 Q4	***
2021 Q1	***
2021 Q2	***
2021 Q3	***
2021 Q4	***

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

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Table D-9
UAN: U.S. purchasers' narratives explaining trends in inventory balances, by year

Firm	Year	Narrative explanation
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***

Firm	Year	Narrative explanation
***	2020	***
***	2019	***
***	2020	***
***	2021	***
***	2019	***
***	2020	***
***	2021	***
***	2021	***
***	2020	***

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

Table D-10
UAN: U.S. producers', U.S. importers', and U.S. purchasers' storage capacity and ending inventory balances, by period

Item	2019	2020	2021
Storage capacity	***	***	***
Ending inventories: March 31	***	***	***
Ending inventories: June 30	***	***	***
Ending inventories: September 31	***	***	***
Ending inventories: December 31	***	***	***

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

Note: Storage capacity was adjusted to remove duplicate reporting across firm type.

Figure D-2
UAN: U.S. producers', U.S. importers', and U.S. purchasers' combined ending inventories and annual storage capacity, by quarter

* * * * * * *

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

Note: Storage capacity was adjusted to remove duplicate reporting across firm type.

APPENDIX E

U.S. SHIPMENTS BY REGION

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Table E-1
UAN: U.S. producers' U.S. shipments, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-1 Continued
UAN: U.S. producers' U.S. shipments, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-1 Continued
UAN: U.S. producers' U.S. shipments, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Table E-2
UAN: U.S. importers' U.S. shipments from Russia, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-2 Continued
UAN: U.S. importers' U.S. shipments from Russia, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-2 Continued
UAN: U.S. importers' U.S. shipments from Russia, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Table E-3
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-3 Continued
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-3 Continued
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table E-4
UAN: U.S. importers' U.S. shipments from subject sources, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-4 Continued
UAN: U.S. importers' U.S. shipments from subject sources, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-4 Continued
UAN: U.S. importers' U.S. shipments from subject sources, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Table E-5
UAN: U.S. importers' U.S. shipments from Canada, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-5 Continued
UAN: U.S. importers' U.S. shipments from Canada, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-5 Continued
UAN: U.S. importers' U.S. shipments from Canada, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table E-6
UAN: U.S. importers' U.S. shipments from all other sources, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-6 Continued
UAN: U.S. importers' U.S. shipments from all other sources, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-6 Continued
UAN: U.S. importers' U.S. shipments from all other sources, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

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

Table E-7
UAN: U.S. importers' U.S. shipments from nonsubject sources, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-7 Continued
UAN: U.S. importers' U.S. shipments from nonsubject sources, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-7 Continued
UAN: U.S. importers' U.S. shipments from nonsubject sources, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table E-8
UAN: U.S. importers' U.S. shipments from all import sources, by region and period

Quantity in short tons gross weight; Value in 1,000 dollars

Region	Measure	2019	2020	2021
Eastern	Quantity	***	***	***
Central	Quantity	***	***	***
Western	Quantity	***	***	***
All regions	Quantity	***	***	***
Eastern	Value: FOB	***	***	***
Central	Value: FOB	***	***	***
Western	Value: FOB	***	***	***
All regions	Value: FOB	***	***	***
Eastern	Value: Inland transport costs	***	***	***
Central	Value: Inland transport costs	***	***	***
Western	Value: Inland transport costs	***	***	***
All regions	Value: Inland transport costs	***	***	***
Eastern	Value: Delivered	***	***	***
Central	Value: Delivered	***	***	***
Western	Value: Delivered	***	***	***
All regions	Value: Delivered	***	***	***

Table continued.

Table E-8 Continued
UAN: U.S. importers' U.S. shipments from all import sources, by region and period

Shares in percent

Region	Measure	2019	2020	2021
Eastern	Share of quantity	***	***	***
Central	Share of quantity	***	***	***
Western	Share of quantity	***	***	***
All regions	Share of quantity	100.0	100.0	100.0
Eastern	Share of FOB value	***	***	***
Central	Share of FOB value	***	***	***
Western	Share of FOB value	***	***	***
All regions	Share of FOB value	100.0	100.0	100.0
Eastern	Share of inland transport costs	***	***	***
Central	Share of inland transport costs	***	***	***
Western	Share of inland transport costs	***	***	***
All regions	Share of inland transport costs	100.0	100.0	100.0
Eastern	Share of delivered value	***	***	***
Central	Share of delivered value	***	***	***
Western	Share of delivered value	***	***	***
All regions	Share of delivered value	100.0	100.0	100.0

Table continued.

Table E-8 Continued
UAN: U.S. importers' U.S. shipments from all import sources, by region and period

Unit values in dollars per short ton gross weight

Region	Measure	2019	2020	2021
Eastern	Unit value: FOB	***	***	***
Central	Unit value: FOB	***	***	***
Western	Unit value: FOB	***	***	***
All regions	Unit value: FOB	***	***	***
Eastern	Unit value: Inland transport costs	***	***	***
Central	Unit value: Inland transport costs	***	***	***
Western	Unit value: Inland transport costs	***	***	***
All regions	Unit value: Inland transport costs	***	***	***
Eastern	Unit value: Delivered	***	***	***
Central	Unit value: Delivered	***	***	***
Western	Unit value: Delivered	***	***	***
All regions	Unit value: Delivered	***	***	***

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Table E-9
UAN: U.S. producers' and U.S. importers' U.S. shipments to the Eastern United States, by source and period

Quantity in short tons gross weight; Shares and ratios in percent

Source	Measure	2019	2020	2021
U.S. producers	Quantity	623,505	834,065	693,710
Russia	Quantity	***	***	***
Trinidad and Tobago	Quantity	***	***	***
Subject sources	Quantity	***	***	***
Canada	Quantity	***	***	***
All other sources	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	854,617	703,984	750,460
All sources	Quantity	1,478,122	1,538,049	1,444,170
U.S. producers	Share	42.2	54.2	48.0
Russia	Share	***	***	***
Trinidad and Tobago	Share	***	***	***
Subject sources	Share	***	***	***
Canada	Share	***	***	***
All other sources	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	57.8	45.8	52.0
All sources	Share	100.0	100.0	100.0
U.S. producers	Ratio	4.2	5.5	4.8
Russia	Ratio	***	***	***
Trinidad and Tobago	Ratio	***	***	***
Subject sources	Ratio	***	***	***
Canada	Ratio	***	***	***
All other sources	Ratio	***	***	***
Nonsubject sources	Ratio	***	***	***
All import sources	Ratio	5.8	4.7	5.2
All sources	Ratio	10.0	10.2	10.1

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

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Shares are the shares by source out of total shipments to the specified region. Ratios are the ratios to overall apparent consumption. Note import data in this table are based on data submitted in response to Commission questionnaires, whereas overall apparent consumption uses official U.S. import statistics.

Table E-10
UAN: U.S. producers' and U.S. importers' U.S. shipments to the Central United States, by source and period

Quantity in short tons gross weight; Shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Quantity	9,734,397	10,157,576	9,567,951
Russia	Quantity	***	***	***
Trinidad and Tobago	Quantity	***	***	***
Subject sources	Quantity	***	***	***
Canada	Quantity	***	***	***
All other sources	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	1,431,903	1,111,537	1,047,660
All sources	Quantity	11,166,300	11,269,113	10,615,611
U.S. producers	Share	87.2	90.1	90.1
Russia	Share	***	***	***
Trinidad and Tobago	Share	***	***	***
Subject sources	Share	***	***	***
Canada	Share	***	***	***
All other sources	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	12.8	9.9	9.9
All sources	Share	100.0	100.0	100.0
U.S. producers	Ratio	65.9	67.2	66.6
Russia	Ratio	***	***	***
Trinidad and Tobago	Ratio	***	***	***
Subject sources	Ratio	***	***	***
Canada	Ratio	***	***	***
All other sources	Ratio	***	***	***
Nonsubject sources	Ratio	***	***	***
All import sources	Ratio	9.7	7.4	7.3
All sources	Ratio	75.5	74.6	73.9

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

Note: Zeroes, null values, and undefined calculations are suppressed and shown as "---". Shares are the shares by source out of total shipments to the specified region. Ratios are the ratios to overall apparent consumption. Note import data in this table are based on data submitted in response to Commission questionnaires, whereas overall apparent consumption uses official U.S. import statistics.

Table E-11
UAN: U.S. producers' and U.S. importers' U.S. shipments to the Western United States, by source and period

Quantity in short tons gross weight; Shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Quantity	1,263,591	1,447,923	1,341,763
Russia	Quantity	***	***	***
Trinidad and Tobago	Quantity	***	***	***
Subject sources	Quantity	***	***	***
Canada	Quantity	***	***	***
All other sources	Quantity	***	***	***
Nonsubject sources	Quantity	***	***	***
All import sources	Quantity	698,971	709,975	727,035
All sources	Quantity	1,962,562	2,157,898	2,068,798
U.S. producers	Share	64.4	67.1	64.9
Russia	Share	***	***	***
Trinidad and Tobago	Share	***	***	***
Subject sources	Share	***	***	***
Canada	Share	***	***	***
All other sources	Share	***	***	***
Nonsubject sources	Share	***	***	***
All import sources	Share	35.6	32.9	35.1
All sources	Share	100.0	100.0	100.0
U.S. producers	Ratio	8.5	9.6	9.3
Russia	Ratio	***	***	***
Trinidad and Tobago	Ratio	***	***	***
Subject sources	Ratio	***	***	***
Canada	Ratio	***	***	***
All other sources	Ratio	***	***	***
Nonsubject sources	Ratio	***	***	***
All import sources	Ratio	4.7	4.7	5.1
All sources	Ratio	13.3	14.3	14.4

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

Note: Shares are the shares by source out of total shipments to the specified region. Ratios are the ratios to overall apparent consumption. Note import data in this table are based on data submitted in response to Commission questionnaires, whereas overall apparent consumption uses official U.S. import statistics.

APPENDIX F

APPENDIX FOR PART II

Table F-1: Principal crops: United States size of area planted in acres by crop type, 2019-22 .. F-3

Table F-2: Principal crops: Prices by month, January 2019 through March 2022 ..... F-4

Table F-3: Purchaser responses to question III-30 about fill programs..... F-6

Table F-4: Purchaser responses to question III-15 about differences in availability by U.S. region F-14

Table F-5: Purchaser responses to factors other than price in which they provided additional information on U.S. transportation F-18

Table F-1
Principal crops: United States size of area planted in acres by crop type, 2019-21 and prospective plantings 2022

Acres	Actual plantings 2019	Actual plantings 2020	Actual plantings 2021	Plantings including yet to be planted 2022
Corn	89,700,000	90,819,000	93,357000	89,900,000
Soybeans	76,100,000	83,084,000	87,195,000	88,300,000
Wheat	45,158,000	44,349,000	46,703,000	47,100,000
Cotton	13,735,700	12,092,000	11,215,000	12,500,000
Other	78,379,300	79,770,000	78,687,000	78,500,000

Source: National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA), Acreage, June 28, 2019, June 30, 2020, June 30, 2021, and June 30, 2022 https://usda.library.cornell.edu/concern/publications/j098zb09z.

Table F-2
Principal crops: Prices by month, January 2019 through April 2022

Year	Month	Corn (dollars per bushel)	Cotton (dollars per pound)	Soybeans (dollars per bushel)	Wheat (dollars per bushel)
2019	January	3.56	0.65	8.64	5.28
2019	February	3.60	0.68	8.52	5.33
2019	March	3.61	0.69	8.52	5.19
2019	April	3.53	0.71	8.28	4.93
2019	May	3.63	0.70	8.02	4.78
2019	June	3.98	0.68	8.31	4.81
2019	July	4.16	0.75	8.38	4.52
2019	August	3.93	0.56	8.22	4.34
2019	September	3.80	0.59	8.35	4.26
2019	October	3.85	0.59	8.60	4.45
2019	November	3.68	0.60	8.59	4.39
2019	December	3.71	0.62	8.70	4.64

Table continued.

Table F-2 Continued
Principal crops: Prices by month, January 2019 through April 2022

Year	Month	Corn (dollars per bushel)	Cotton (dollars per pound)	Soybeans (dollars per bushel)	Wheat (dollars per bushel)
2020	January	3.79	0.60	8.84	4.88
2020	February	3.78	0.61	8.60	4.88
2020	March	3.68	0.58	8.47	4.86
2020	April	3.29	0.55	8.35	4.85
2020	May	3.20	0.55	8.28	4.76
2020	June	3.16	0.57	8.34	4.57
2020	July	3.21	0.60	8.50	4.54
2020	August	3.12	0.57	8.66	4.54
2020	September	3.41	0.59	9.24	4.73
2020	October	3.61	0.60	9.63	4.98
2020	November	3.79	0.63	10.30	5.24
2020	December	3.97	0.66	10.60	5.46
2021	January	4.24	0.69	10.90	5.48
2021	February	4.75	0.73	12.70	5.83
2021	March	4.89	0.70	13.20	5.86
2021	April	5.31	0.71	13.90	6.04
2021	May	5.91	0.71	14.80	6.46
2021	June	6.00	0.73	14.50	6.24
2021	July	6.12	0.75	14.10	6.26
2021	August	6.32	0.73	13.70	7.13
2021	September	5.47	0.76	12.20	7.75
2021	October	5.02	0.84	11.90	7.90
2021	November	5.27	0.86	12.20	8.51
2021	December	5.47	0.88	12.50	8.58
2022	January	5.57	0.96	12.90	8.48
2022	February	6.10	1.00	14.80	9.17
2022	March	6.56	1.02	15.40	9.94
2022	April	7.08	1.10	15.80	10.20

Source: For grain prices: https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/index.php, accessed June 9, 2022. Cotton prices were provided by Becky Sommer from USDA.

Table F-3
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***
***	2019	***	***
***	2020	***	***
***	2021	***	***

Table continued.

Table F-3 Continued
UAN: Purchaser responses to question III-30 about fill programs

Purchaser	Year	Timing	Details
***	2019	***	***
***	2020	***	***
***	2021	***	***

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

Note: For the sake of brevity and consistency, in the table above, CF Industries has been changed to CF, Koch Industries and Koch Fertilizer have been changed to Koch, and CVR Partners have been changed to CVR.

Table F-4
UAN: Purchaser responses to question III-15 about differences in availability by U.S. region

Purchaser	Yes /no	Explanation
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Table continued.

Table F-4 Continued
UAN: Purchaser responses to question III-15 about differences in availability by U.S. region

Purchaser	Yes /no	Explanation
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Table continued.

Table F-4 Continued
UAN: Purchaser responses to question III-15 about differences in availability by U.S. region

Purchaser	Yes /no	Explanation
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

Table continued.

Table F-4 Continued
UAN: Purchaser responses to question III-15 about differences in availability by U.S. region

Purchaser	Yes /no	Explanation
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***
***	***	***

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

Table F-5
UAN: Purchaser responses to factors other than price in which they provided additional information

Purchaser	Explanation
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***
***	***

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

APPENDIX G

IMPACTS OF EUROPEAN UNION ANTIDUMPING DUTIES AND COVID-19 PANDEMIC

Table G-1: Count of U.S. producers' responses regarding if European Union duties had an impact on U.S. operations G-3

Table G-2: U.S. producers' narratives explaining European Union duties impact on U.S. operations G-3

Table G-3: U.S. importers' narratives explaining European Union duties impact on the U.S. UAN market G-5

Table G-4: Foreign producers' narratives explaining European Union duties impact on operations G-7

Table G-5: U.S. producers' narratives explaining the impact of the COVID-19 pandemic G-8

Table G-6: U.S. importers' narratives explaining the impact of the COVID-19 pandemic G-9

Table G-7: Foreign producers' narratives explaining the impact of the COVID-19 pandemic G-9

Table G-1
UAN: Count of U.S. producers' responses regarding if European Union duties had an impact on U.S. operations

EU antidumping duties with respect to	U.S. operations serving	Yes	No
Russia	U.S. market	5	2
Russia	Export markets	3	4
Trinidad and Tobago	U.S. market	5	2
Trinidad and Tobago	Export markets	3	4
United States	U.S. market	5	2
United States	Export markets	3	4

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

Table G-2
UAN: U.S. producers' narratives explaining European Union duties impact on U.S. operations

EU antidumping duties with respect to	Narrative explanation
Russia	***
Russia	***
Russia	***
Russia	***
Russia	***
Russia	***

EU antidumping duties with respect to	Narrative explanation
Trinidad and Tobago	***
Trinidad and Tobago	***
Trinidad and Tobago	***
Trinidad and Tobago	***
Trinidad and Tobago	***
Trinidad and Tobago	***
United States	***
United States	***
United States	***
United States	***

EU antidumping duties with respect to	Narrative explanation
United States	***
United States	***

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

Table G-3
UAN: U.S. importers' narratives explaining European Union duties impact on the U.S. UAN market

Firm	Narrative explanation
***	***
***	***
***	***
***	***

Firm	Narrative explanation
***	***
***	***
***	***
***	***
***	***
***	***

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

Table G-4
UAN: Foreign producers' narratives explaining European Union duties impact on operations

EU antidumping duties with respect to	Narrative explanation
Russia	***
Russia	***
Trinidad and Tobago	***
Trinidad and Tobago	***
United States	***
United States	***

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

Table G-5
UAN: U.S. producers' narratives explaining the impact of the COVID-19 pandemic

Firm	Narrative explanation
***	***
***	***
***	***

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

Table G-6
UAN: U.S. importers' narratives explaining the impact of the COVID-19 pandemic

Firm	Narrative explanation
***	***
***	***
***	***
***	***

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

Table G-7
UAN: Foreign producers' narratives explaining the impact of the COVID-19 pandemic

Firm	Narrative explanation
***	***

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

APPENDIX H

HISTORICAL U.S. IMPORT DATA

Table H-1: U.S. imports, by year and source H-3
Figure H-1: U.S. imports, by source and year H-5
Figure H-2: U.S. imports from subject and nonsubject sources, by year H-6

Table H-1
UAN: U.S. imports, by year and source

Quantity in short tons gross weight

Year	Russia	Trinidad and Tobago	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
2012	744,609	851,894	1,596,503	401,903	1,320,796	1,722,699	3,319,202
2013	1,255,457	718,661	1,974,117	333,267	1,176,521	1,509,788	3,483,906
2014	1,435,756	875,990	2,311,746	425,411	706,880	1,132,291	3,444,037
2015	1,328,527	843,474	2,172,001	489,491	768,926	1,258,417	3,430,418
2016	1,229,311	742,425	1,971,736	483,720	642,886	1,126,605	3,098,341
2017	1,028,817	967,306	1,996,123	507,626	384,912	892,538	2,888,661
2018	1,227,254	769,643	1,996,896	499,070	145,304	644,375	2,641,271
2019	1,706,932	942,579	2,649,511	452,234	58,131	510,366	3,159,877
2020	1,186,296	996,137	2,182,433	422,437	69,830	492,267	2,674,700
2021	1,165,275	920,601	2,085,876	467,542	200,923	668,465	2,754,341

Table continued.

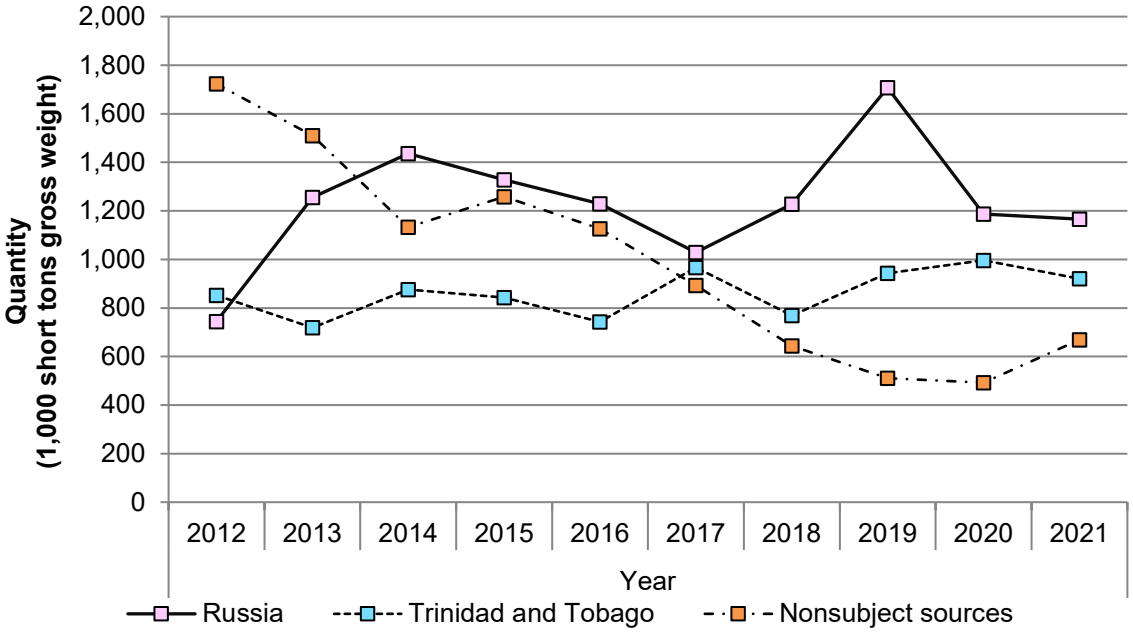
Table H-1 Continued
UAN: U.S. imports, by year and source

Shares across in percent

Year	Russia	Trinidad and Tobago	Subject sources	Canada	All other sources	Nonsubject sources	All import sources
2012	22.4	25.7	48.1	12.1	39.8	51.9	100.0
2013	36.0	20.6	56.7	9.6	33.8	43.3	100.0
2014	41.7	25.4	67.1	12.4	20.5	32.9	100.0
2015	38.7	24.6	63.3	14.3	22.4	36.7	100.0
2016	39.7	24.0	63.6	15.6	20.7	36.4	100.0
2017	35.6	33.5	69.1	17.6	13.3	30.9	100.0
2018	46.5	29.1	75.6	18.9	5.5	24.4	100.0
2019	54.0	29.8	83.8	14.3	1.8	16.2	100.0
2020	44.4	37.2	81.6	15.8	2.6	18.4	100.0
2021	42.3	33.4	75.7	17.0	7.3	24.3	100.0

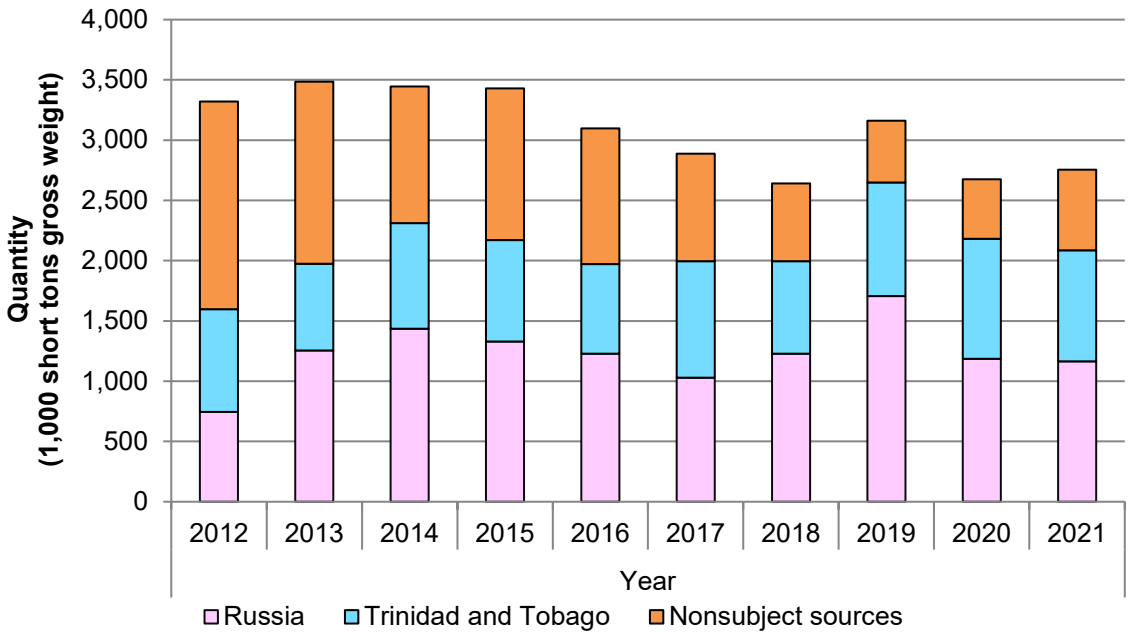
Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

Figure H-1
UAN: U.S. imports, by source and year



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

Figure H-2
UAN: U.S. imports from subject and nonsubject sources, by year



Source: Compiled from official U.S. import statistics of the U.S. Department of Commerce Census Bureau using statistical reporting number 3102.80.0000, accessed June 23, 2022. Imports are based on the imports for consumption data series.

APPENDIX J

U.S. SHIPMENTS BY NITROGEN CONCENTRATION

Table J-1: U.S. producers' U.S. shipments, by nitrogen concentration and by period J-3
Table J-2: U.S. importers' U.S. shipments from Russia, by nitrogen concentration and by period J-5
Table J-3: U.S. importers' U.S. shipments from Trinidad and Tobago, by nitrogen concentration and by period J-7
Table J-4: U.S. importers' U.S. shipments from subject sources, by nitrogen concentration and by period J-9
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Table J-8: U.S. importers' U.S. shipments from all import sources, by nitrogen concentration and by period J-17

Table J-1
UAN: U.S. producers' U.S. shipments, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-1 Continued
UAN: U.S. producers' U.S. shipments, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-1 Continued
UAN: U.S. producers' U.S. shipments, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-1 Continued
UAN: U.S. producers' U.S. shipments, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-2
UAN: U.S. importers' U.S. shipments from Russia, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-2 Continued
UAN: U.S. importers' U.S. shipments from Russia, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-2 Continued
UAN: U.S. importers' U.S. shipments from Russia, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-2 Continued
UAN: U.S. importers' U.S. shipments from Russia, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-3
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-3 Continued
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-3 Continued
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-3 Continued
UAN: U.S. importers' U.S. shipments from Trinidad and Tobago, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-4
UAN: U.S. importers' U.S. shipments from subject sources, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-4 Continued
UAN: U.S. importers' U.S. shipments from subject sources, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-4 Continued
UAN: U.S. importers' U.S. shipments from subject sources, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-4 Continued
UAN: U.S. importers' U.S. shipments from subject sources, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-5
UAN: U.S. importers' U.S. shipments from Canada, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-5 Continued
UAN: U.S. importers' U.S. shipments from Canada, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-5 Continued
UAN: U.S. importers' U.S. shipments from Canada, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-5 Continued
UAN: U.S. importers' U.S. shipments from Canada, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-6
UAN: U.S. importers' U.S. shipments from all other sources, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-6 Continued
UAN: U.S. importers' U.S. shipments from all other sources, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-6 Continued
UAN: U.S. importers' U.S. shipments from all other sources, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-6 Continued
UAN: U.S. importers' U.S. shipments from all other sources, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-7
UAN: U.S. importers' U.S. shipments from nonsubject sources, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-7 Continued
UAN: U.S. importers' U.S. shipments from nonsubject sources, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-7 Continued
UAN: U.S. importers' U.S. shipments from nonsubject sources, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-7 Continued
UAN: U.S. importers' U.S. shipments from nonsubject sources, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

Table J-8
UAN: U.S. importers' U.S. shipments from all import sources, by nitrogen concentration and by period

Quantity 1 in short tons gross weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 1	***	***	***
30 percent	Quantity 1	***	***	***
28 percent	Quantity 1	***	***	***
Other percentages	Quantity 1	***	***	***
All concentrations	Quantity 1	***	***	***
32 percent	Share of quantity 1	***	***	***
30 percent	Share of quantity 1	***	***	***
28 percent	Share of quantity 1	***	***	***
Other percentages	Share of quantity 1	***	***	***
All concentrations	Share of quantity 1	100.0	100.0	100.0

Table continued.

Table J-8 Continued
UAN: U.S. importers' U.S. shipments from all import sources, by nitrogen concentration and by period

Quantity 2 in short tons N-weight; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Quantity 2	***	***	***
30 percent	Quantity 2	***	***	***
28 percent	Quantity 2	***	***	***
Other percentages	Quantity 2	***	***	***
All concentrations	Quantity 2	***	***	***
32 percent	Share of quantity 2	***	***	***
30 percent	Share of quantity 2	***	***	***
28 percent	Share of quantity 2	***	***	***
Other percentages	Share of quantity 2	***	***	***
All concentrations	Share of quantity 2	100.0	100.0	100.0

Table continued.

Table J-8 Continued
UAN: U.S. importers' U.S. shipments from all import sources, by nitrogen concentration and by period

Value in 1,000 dollars; Shares in percent

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Value	***	***	***
30 percent	Value	***	***	***
28 percent	Value	***	***	***
Other percentages	Value	***	***	***
All concentrations	Value	***	***	***
32 percent	Share of value	***	***	***
30 percent	Share of value	***	***	***
28 percent	Share of value	***	***	***
Other percentages	Share of value	***	***	***
All concentrations	Share of value	100.0	100.0	100.0

Table continued.

Table J-8 Continued
UAN: U.S. importers' U.S. shipments from all import sources, by nitrogen concentration and by period

Unit value 1 in dollars per short ton gross weight; Unit value 2 in dollars per short ton N-weight; Ratios in percent and represent short tons N-weight per short ton gross weight

Nitrogen concentration	Measure	2019	2020	2021
32 percent	Unit value 1	***	***	***
30 percent	Unit value 1	***	***	***
28 percent	Unit value 1	***	***	***
Other percentages	Unit value 1	***	***	***
All concentrations	Unit value 1	***	***	***
32 percent	Unit value 2	***	***	***
30 percent	Unit value 2	***	***	***
28 percent	Unit value 2	***	***	***
Other percentages	Unit value 2	***	***	***
All concentrations	Unit value 2	***	***	***
32 percent	Ratio	***	***	***
30 percent	Ratio	***	***	***
28 percent	Ratio	***	***	***
Other percentages	Ratio	***	***	***
All concentrations	Ratio	***	***	***

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

APPENDIX K

APPARENT U.S. CONSUMPTION BASED ON U.S. SHIPMENTS OF IMPORTS

Table K-1: Apparent U.S. consumption and market shares based on quantity data, by source and period K-3
Figure K-1: Apparent U.S. consumption based on quantity data, by source and period K-4
Table K-2: Changes in U.S. shipment quantities between comparison periods, by source K-5
Table K-3: Apparent U.S. consumption and market shares based on value data, by source and period K-6
Figure K-2: Apparent U.S. consumption based on value data, by source and period K-7
Table K-4: Changes in U.S. shipment values between comparison periods, by source K-8

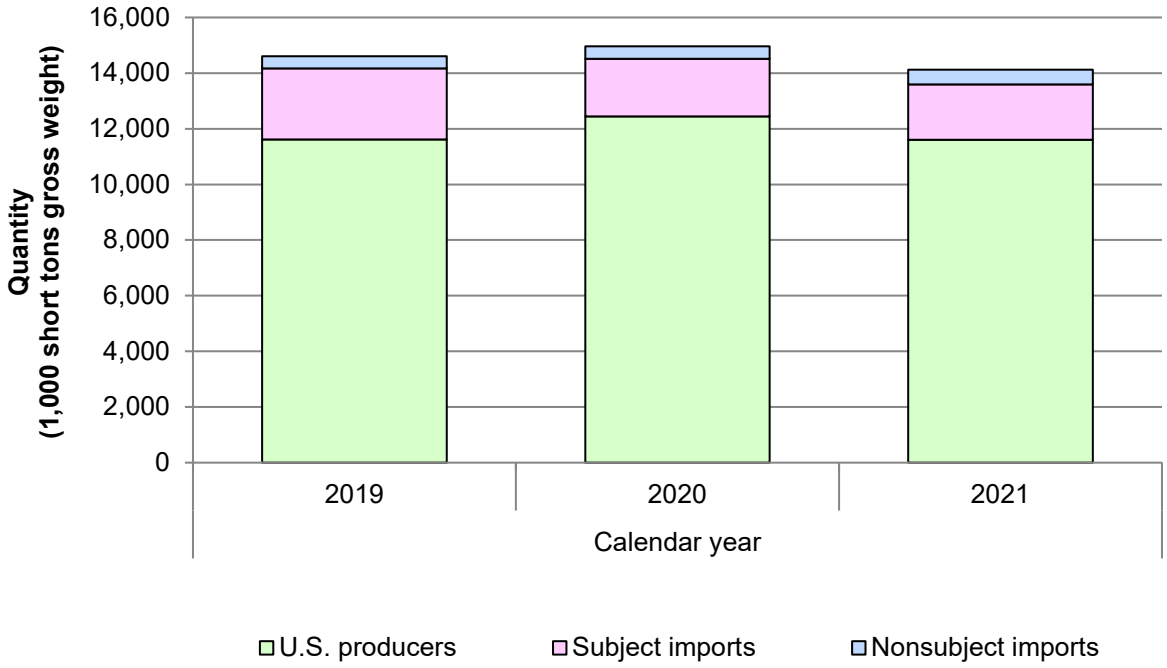
Table K-1
UAN: Apparent U.S. consumption and market shares based on quantity data, by source and period

Quantity in short tons gross weight; Shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Quantity	11,621,493	12,439,564	11,603,424
Russia	Quantity	***	***	***
Trinidad and Tobago	Quantity	***	***	***
Subject sources	Quantity	2,545,630	2,069,574	1,987,010
Canada	Quantity	***	***	***
All other sources	Quantity	***	***	***
Nonsubject sources	Quantity	439,862	455,923	538,147
All import sources	Quantity	2,985,492	2,525,497	2,525,157
All sources	Quantity	14,606,985	14,965,061	14,128,581
U.S. producers	Share	79.6	83.1	82.1
Russia	Share	***	***	***
Trinidad and Tobago	Share	***	***	***
Subject sources	Share	17.4	13.8	14.1
Canada	Share	***	***	***
All other sources	Share	***	***	***
Nonsubject sources	Share	3.0	3.0	3.8
All import sources	Share	20.4	16.9	17.9
All sources	Share	100.0	100.0	100.0

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

Figure K-1
UAN: Apparent U.S. consumption based on quantity data, by source and period



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

Table K-2
UAN: Changes in U.S. shipment quantities between comparison periods, by source

Change in quantity in percent; Change in share in percentage points

Source	Metric	2019-21	2019-20	2020-21
U.S. producers	Change in quantity	▼(0.2)	▲7.0	▼(6.7)
Russia	Change in quantity	▼***	▼***	▼***
Trinidad and Tobago	Change in quantity	▲***	▲***	▲***
Subject sources	Change in quantity	▼(21.9)	▼(18.7)	▼(4.0)
Canada	Change in quantity	▲***	▲***	▲***
All other sources	Change in quantity	▲***	▲***	▲***
Nonsubject sources	Change in quantity	▲22.3	▲3.7	▲18.0
All import sources	Change in quantity	▼(15.4)	▼(15.4)	▼(0.0)
All sources	Change in quantity	▼(3.3)	▲2.5	▼(5.6)
U.S. producers	Change in share	▲2.6	▲3.6	▼(1.0)
Russia	Change in share	▼***	▼***	▼***
Trinidad and Tobago	Change in share	▲***	▼***	▲***
Subject sources	Change in share	▼(3.4)	▼(3.6)	▲0.2
Canada	Change in share	▲***	▼***	▲***
All other sources	Change in share	▲***	▲***	▲***
Nonsubject sources	Change in share	▲0.8	▲0.0	▲0.8
All import sources	Change in share	▼(2.6)	▼(3.6)	▲1.0

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

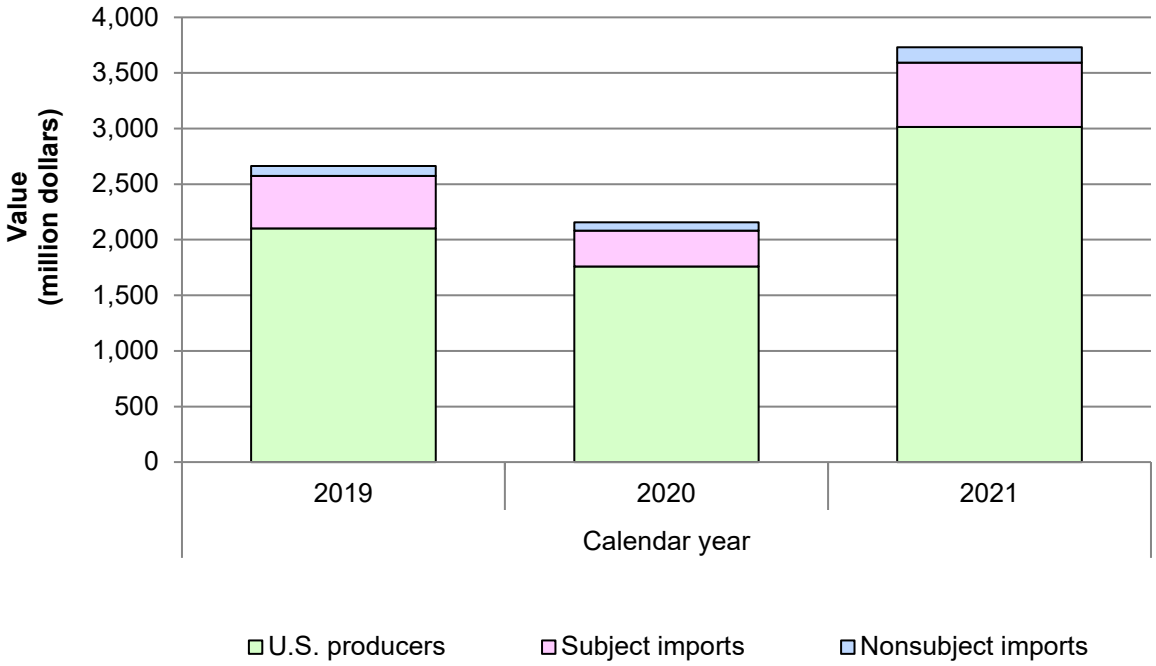
Table K-3
UAN: Apparent U.S. consumption and market shares based on value data, by source and period

Value in 1,000 dollars; Shares in percent

Source	Measure	2019	2020	2021
U.S. producers	Value	2,101,959	1,758,572	3,013,382
Russia	Value	***	***	***
Trinidad and Tobago	Value	***	***	***
Subject sources	Value	472,591	324,287	578,681
Canada	Value	***	***	***
All other sources	Value	***	***	***
Nonsubject sources	Value	87,447	73,780	138,549
All import sources	Value	560,038	398,067	717,230
All sources	Value	2,661,997	2,156,639	3,730,612
U.S. producers	Share	79.0	81.5	80.8
Russia	Share	***	***	***
Trinidad and Tobago	Share	***	***	***
Subject sources	Share	17.8	15.0	15.5
Canada	Share	***	***	***
All other sources	Share	***	***	***
Nonsubject sources	Share	3.3	3.4	3.7
All import sources	Share	21.0	18.5	19.2
All sources	Share	100.0	100.0	100.0

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

Figure K-2
UAN: Apparent U.S. consumption based on value data, by source and period



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

Table K-4
UAN: Changes in U.S. shipment values between comparison periods, by source

Change in quantity in percent; Change in share in percentage points

Source	Metric	2019-21	2019-20	2020-21
U.S. producers	Change in value	▲43.4	▼(16.3)	▲71.4
Russia	Change in value	▼***	▼***	▲***
Trinidad and Tobago	Change in value	▲***	▼***	▲***
Subject sources	Change in value	▲22.4	▼(31.4)	▲78.4
Canada	Change in value	▲***	▼***	▲***
All other sources	Change in value	▲***	▲***	▲***
Nonsubject sources	Change in value	▲58.4	▼(15.6)	▲87.8
All import sources	Change in value	▲28.1	▼(28.9)	▲80.2
All sources	Change in value	▲40.1	▼(19.0)	▲73.0
U.S. producers	Change in share	▲1.8	▲2.6	▼(0.8)
Russia	Change in share	▼***	▼***	▼***
Trinidad and Tobago	Change in share	▲***	▼***	▲***
Subject sources	Change in share	▼(2.2)	▼(2.7)	▲0.5
Canada	Change in share	▲***	▲***	▲***
All other sources	Change in share	▲***	▲***	▲***
Nonsubject sources	Change in share	▲0.4	▲0.1	▲0.3
All import sources	Change in share	▼(1.8)	▼(2.6)	▲0.8

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

APPENDIX L

NONSUBJECT COUNTRY PRICE DATA AND TABLES FOR FIGURES IN PART V

Table L-1: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarter L-4

Table L-2: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by quarter L-5

Figure L-1: Weighted-average prices and quantities of domestic and imported product 1, by quarter L-7

Figure L-2: Weighted-average prices and quantities of domestic and imported product 2, by quarter L-8

Table L-3: Summary of higher/(lower) unit values, by source, 2019 to 2021 ..... L-9

Table L-4: Natural gas: U.S. and UK prices by month, January 2019 through May 2022 ..... L-10

Table L-5: *** L-11

Three importers reported price data for Canada for products 1-2. Price data reported by these firms accounted for *** percent of U.S. commercial shipments from Canada. These price items and accompanying data are comparable to those presented in tables V-3 to V-4. Price and quantity data for Canada are shown in tables L-1 to L-2 and in figures L-1 to L-2 (with domestic and subject sources).

In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from Canada were lower than prices for U.S.-produced product in 23 instances and higher in 48 instances. In comparing nonsubject country pricing data with subject countries' pricing data, prices for product imported from Canada were lower than prices for product imported from Russia in 48 instances and higher in 23 instances and were lower than prices for product imported from Trinidad and Tobago in 20 instances and higher in 15 instances. A summary of price differentials is presented in table L-3.

Table L-1
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by month

Price in dollars per short ton gross weight, quantity in short ton gross weight.

Period	U.S. price	U.S. quantity	Canada price	Canada quantity
2019 M01	***	***	***	***
2019 M02	***	***	***	***
2019 M03	***	***	***	***
2019 M04	***	***	***	***
2019 M05	***	***	***	***
2019 M06	***	***	***	***
2019 M07	***	***	***	***
2019 M08	***	***	***	***
2019 M09	***	***	***	***
2019 M10	***	***	***	***
2019 M11	***	***	***	***
2019 M12	***	***	***	***
2020 M01	***	***	***	***
2020 M02	***	***	***	***
2020 M03	***	***	***	***
2020 M04	***	***	***	***
2020 M05	***	***	***	***
2020 M06	***	***	***	***
2020 M07	***	***	***	***
2020 M08	***	***	***	***
2020 M09	***	***	***	***
2020 M10	***	***	***	***
2020 M11	***	***	***	***
2020 M12	***	***	***	***

Table continued.

Table L-1 Continued
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by month

Price in dollars per short ton gross weight, quantity in short ton gross weight.

Period	U.S. price	U.S. quantity	Canada price	Canada quantity
2021 M01	***	***	***	***
2021 M02	***	***	***	***
2021 M03	***	***	***	***
2021 M04	***	***	***	***
2021 M05	***	***	***	***
2021 M06	***	***	***	***
2021 M07	***	***	***	***
2021 M08	***	***	***	***
2021 M09	***	***	***	***
2021 M10	***	***	***	***
2021 M11	***	***	***	***
2021 M12	***	***	***	***

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

Note: Product 1: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration (“32% UAN”), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers.

Table L-2
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by month

Price in dollars per short ton gross weight, quantity in short ton gross weight.

Period	U.S. price	U.S. quantity	Canada price	Canada quantity
2019 M01	***	***	***	***
2019 M02	***	***	***	***
2019 M03	***	***	***	***
2019 M04	***	***	***	***
2019 M05	***	***	***	***
2019 M06	***	***	***	***
2019 M07	***	***	***	***
2019 M08	***	***	***	***
2019 M09	***	***	***	***
2019 M10	***	***	***	***
2019 M11	***	***	***	***
2019 M12	***	***	***	***

Table continued.

Table L-2 Continued
UAN: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by month

Price in dollars per short ton gross weight, quantity in short ton gross weight.

Period	U.S. price	U.S. quantity	Canada price	Canada quantity
2020 M01	***	***	***	***
2020 M02	***	***	***	***
2020 M03	***	***	***	***
2020 M04	***	***	***	***
2020 M05	***	***	***	***
2020 M06	***	***	***	***
2020 M07	***	***	***	***
2020 M08	***	***	***	***
2020 M09	***	***	***	***
2020 M10	***	***	***	***
2020 M11	***	***	***	***
2020 M12	***	***	***	***
2021 M01	***	***	***	***
2021 M02	***	***	***	***
2021 M03	***	***	***	***
2021 M04	***	***	***	***
2021 M05	***	***	***	***
2021 M06	***	***	***	***
2021 M07	***	***	***	***
2021 M08	***	***	***	***
2021 M09	***	***	***	***
2021 M10	***	***	***	***
2021 M11	***	***	***	***
2021 M12	***	***	***	***

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

Note: Product 2: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration (“32% UAN”), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors.

Figure L-1
UAN: Weighted-average prices and quantities of domestic and imported product 1, by month

Price of product 1

* * * * * * *

Volume of product 1

* * * * * * *

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

Note: Product 1: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration (“32% UAN”), sold on an f.o.b. basis to U.S. agricultural sector customers who are retailers.

Figure L-2
UAN: Weighted-average prices and quantities of domestic and imported product 2, by month

Price of product 2

* * * * * * *

Volume of product 2

* * * * * * *

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

Note: Product 2: Standard-grade Urea Ammonium Nitrate (UAN) in an aqueous solution of 32 percent nitrogen concentration ("32% UAN"), sold on an f.o.b. basis to U.S. agricultural sector customers who are wholesalers/distributors.

Table L-3
UAN: Summary of higher/(lower) unit values, by source, 2019 to 2021

Comparison source	Benchmark source	Number of months Canada prices were lower	Quantity lower	Number of months Canada prices were higher	Quantity higher
Canada	United States	23	***	48	***
Canada	Russia	48	***	23	***
Canada	Trinidad and Tobago	20	***	15	***

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

Table L-4
Natural gas: U.S. and UK prices by month, January 2019 through May 2022

Price in dollars per million BTU

Year	Month	U.S. Price	UK Price
2019	January	3.11	7.90
2019	February	2.69	6.50
2019	March	2.95	5.00
2019	April	2.65	4.70
2019	May	2.64	4.40
2019	June	2.40	3.50
2019	July	2.37	3.40
2019	August	2.22	3.60
2019	September	2.56	4.20
2019	October	2.33	5.30
2019	November	2.65	5.30
2019	December	2.22	4.80
2020	January	2.02	3.60
2020	February	1.91	2.80
2020	March	1.79	2.70
2020	April	1.74	1.90
2020	May	1.75	1.70
2020	June	1.63	1.70
2020	July	1.77	1.80
2020	August	2.30	2.80
2020	September	1.92	3.90
2020	October	2.39	5.30
2020	November	2.61	5.40
2020	December	2.59	6.10

Table continued.

Table L-4-Continued
Natural gas: U.S. and UK prices by month, January 2019 through May 2022

Price in dollars per million BTU

Year	Month	U.S. price	UK price
2021	January	2.71	7.90
2021	February	5.35	6.20
2021	March	2.62	6.30
2021	April	2.66	7.40
2021	May	2.91	9.20
2021	June	3.26	10.40
2021	July	3.84	12.40
2021	August	4.07	15.50
2021	September	5.16	24.50
2021	October	5.51	31.20
2021	November	5.05	28.00
2021	December	3.76	38.30
2022	January	4.38	27.40
2022	February	4.69	26.70
2022	March	4.90	40.60
2022	April	6.60	24.90
2022	May	8.14	19.80
2022	June	Not available	22.40

Source: U.S. Energy Information Administration, Henry Hub Natural Gas Spot Price ***, retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MHHNGSP, accessed June 6, 2022.UK gas prices; National Balancing Point (United Kingdom). Accessed June 27, 2022.

Table L-5
***

Price in dollars per short ton gross weight

Year	Month	Gulf spot barge price	Midwest cornbelt (retail)
2019	January	***	***
2019	February	***	***
2019	March	***	***
2019	April	***	***
2019	May	***	***
2019	June	***	***
2019	July	***	***
2019	August	***	***
2019	September	***	***
2019	October	***	***
2019	November	***	***
2019	December	***	***
2020	January	***	***
2020	February	***	***
2020	March	***	***
2020	April	***	***
2020	May	***	***
2020	June	***	***
2020	July	***	***
2020	August	***	***
2020	September	***	***
2020	October	***	***
2020	November	***	***
2020	December	***	***

Table continued.

Table L-5 Continued
***

Price in dollars per short ton gross weight

Year	Month	Gulf spot barge price	Midwest cornbelt (retail)
2021	January	***	***
2021	February	***	***
2021	March	***	***
2021	April	***	***
2021	May	***	***
2021	June	***	***
2021	July	***	***
2021	August	***	***
2021	September	***	***
2021	October	***	***
2021	November	***	***
2021	December	***	***
2022	January	***	***
2022	February	***	***
2022	March	***	***
2022	April	***	***
2022	May	***	***
2022	June	***	***

Source: Green Markets® A Bloomberg Company price scan, accessed June 27, 2022.

APPENDIX M

APPENDIX FOR PART VI

Table M-1
UAN: Firm-by-firm total net sales quantity, by period

Net sales quantity

Quantity in short tons gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm total net sales value, by period

Net sales value

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm cost of goods sold, by period

COGS

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm gross profit or (loss), by period

Gross profit or (loss)

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	532,811	213,146	1,197,861

Table continued.

Table M-1 Continued
UAN: Firm-by-firm selling, general and administrative (SG&A) expenses, by period

SG&A expenses

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	136,981	111,103	138,047

Table continued.

Table M-1 Continued
UAN: Firm-by-firm operating income or (loss), by period

Operating income or (loss)

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	395,830	102,043	1,059,814

Table continued.

Table M-1 Continued
UAN: Firm-by-firm net income or (loss), by period

Net income or (loss)

Value in 1,000 dollars

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	225,436	(34,683)	977,566

Table continued.

Table M-1 Continued
UAN: Firm-by-firm ratio of cost of goods sold to net sales value, by period

COGS to net sales ratio

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm ratio of gross profit or (loss) to net sales value, by period

Gross profit or (loss) to net sales ratio

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm ratio of SG&A expenses to net sales value, by period

SG&A expenses to net sales ratio

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm ratio of operating income or (loss) to net sales value, by period

Operating income or (loss) to net sales ratio

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm ratio of net income or (loss) to net sales value, by period

Net income or (loss) to net sales ratio

Ratio in percent

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit net sales value, by period

Unit net sales value

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit natural gas cost, by period

Unit natural gas cost

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit other raw material cost, by period

Unit other raw material cost

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit total raw materials cost, by period

Unit total raw material cost

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit direct labor cost, by period

Unit direct labor cost

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit other factory costs, by period

Unit other factory costs

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit COGS, by period

Unit COGS

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit gross profit or (loss), by period

Unit gross profit or (loss)

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit SG&A expenses, by period

Unit SG&A expenses

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit operating income or (loss), by period

Unit operating income or (loss)

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

Table continued.

Table M-1 Continued
UAN: Firm-by-firm unit net income or (loss), by period

Unit net income or (loss)

Unit value in dollars per short ton gross weight

Firm	2019	2020	2021
CF Industries	***	***	***
CVR Partners	***	***	***
Dyno Nobel	***	***	***
Iowa Fertilizer	***	***	***
Koch Fertilizer	***	***	***
LSB Industries	***	***	***
PCS/Agrium	***	***	***
TradeMark Nitrogen	***	***	***
All firms	***	***	***

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