Biodiesel from Argentina and Indonesia

Investigation Nos. 701-TA-571-572 and 731-TA-1347-1348 (Preliminary)

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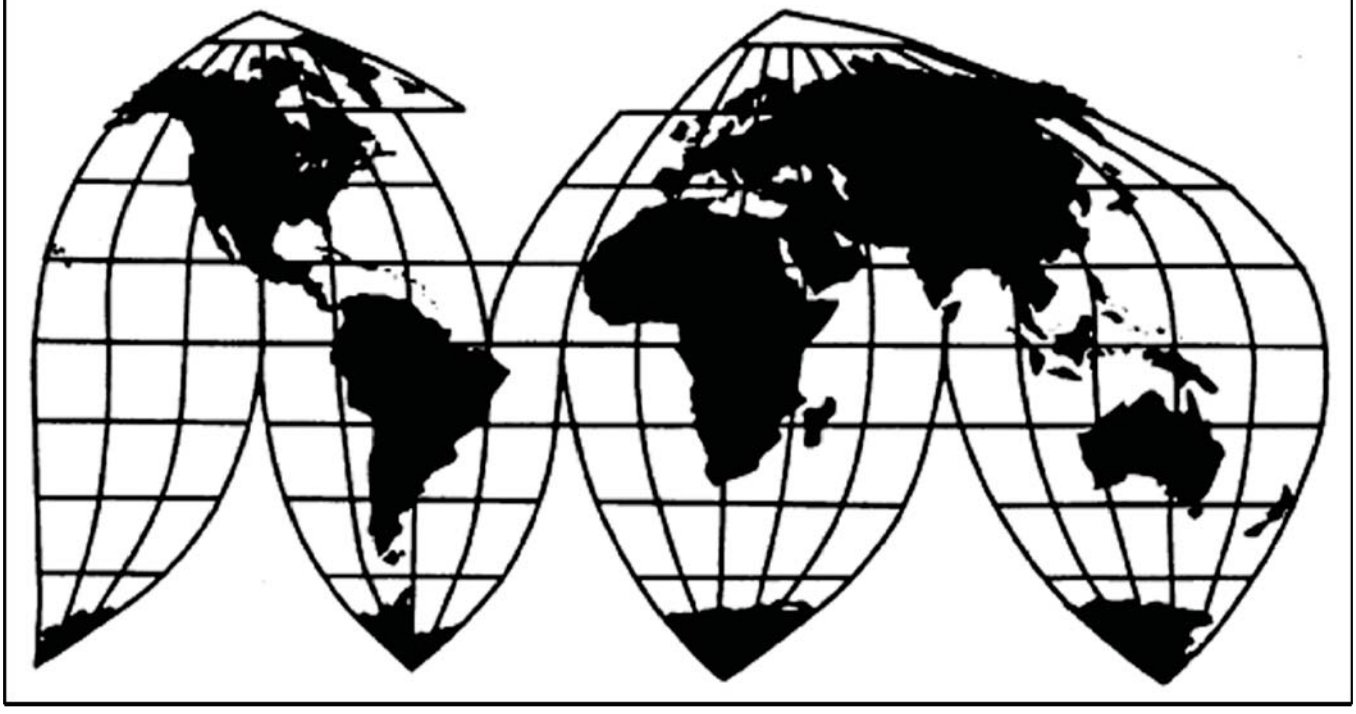
U.S. International Trade Commission



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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-571-572 and 731-TA-1347-1348 (Preliminary)

Biodiesel from Argentina and Indonesia

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of biodiesel from Argentina and Indonesia, provided for in subheadings 3826.00.10 and 3826.00.30 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value ("LTFV") and to be subsidized by the governments of Argentina and Indonesia.

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

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

BACKGROUND

On March 23, 2017, the National Biodiesel Board Fair Trade Coalition, Washington, DC filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV and subsidized imports of biodiesel from Argentina and Indonesia. Accordingly, effective March 23, 2017, the Commission, pursuant to sections 703(a) and 733(a) of the Act (19 U.S.C. 1671b(a) and 1673b(a)), instituted countervailing duty investigation Nos. 701-TA-571-572 and antidumping duty investigation Nos. 731-TA-1347-1348 (Preliminary).

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

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of March 29, 2017 (82 FR 15541). The conference was held in Washington, DC, on April 13, 2017, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of biodiesel from Argentina and Indonesia that are allegedly sold in the United States at less than fair value and that are allegedly subsidized by the governments of Argentina and Indonesia.

I. The Legal Standard for Preliminary Determinations

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

II. Background

The National Biodiesel Board Fair Trade Coalition ("petitioner"), an *ad hoc* association comprised of the National Biodiesel Board and 15 domestic producers, filed the petitions in these investigations on March 23, 2017. Petitioner appeared at the staff conference with industry witnesses and submitted a postconference brief.

Several respondent entities participated in these investigations. Counsel to Camara Argentina de Biocombustibles (CARBIO), an association of producers and exporters of subject merchandise from Argentina, and its eight individual member companies, Aceitera General Deheza S.A., Bunge Argentina S.A., Cargill S.A.C.I., COFCO Argentina S.A., LDC Argentina S.A., Molinos Agro S.A., Renova S.A. and Vicentin S.A.I.C. (collectively, "Argentine Respondents") appeared at the conference and submitted a joint postconference brief.

Counsel to PT Wilmar Bioenergi Indonesia and PT Musim Mas, producers and exporters of the subject merchandise in Indonesia, and Wilmar Oleo North America LLC , an importer of the subject merchandise (collectively, "Indonesian Respondents"), appeared at the conference and submitted a joint postconference brief. A minister from the Embassy of Argentina and

[1] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

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

representatives from BioSphere Fuels, LLC and Louis Dreyfus Company Claypool Holdings LLC, importers of subject merchandise appeared at the conference. Cargill, Inc., a domestic biodiesel producer and importer of subject merchandise, submitted a postconference brief opposing imposition of duties.

U.S. industry data are based on the questionnaire responses of 25 producers, accounting for 88.7 percent of U.S. production of biodiesel in 2016.[3] U.S. import data are based on official Commerce import statistics and questionnaire responses from 13 U.S. importers, accounting for a large majority of total subject imports during 2016.[4]

The Commission received responses to its questionnaires from eight producers of subject merchandise in Argentina, accounting for approximately *** percent of subject imports from that country in 2016.[5] The Commission received responses to its questionnaires from four producers of subject merchandise in Indonesia, whose exports to the United States accounted for all U.S. imports of biodiesel from Indonesia during 2016.[6]

III. Domestic Like Product

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

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[10] No single factor is

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[3] Confidential Report, Memorandum INV-PP-057 (May 1, 2017) ("CR") at I-5, Public Report ("PR") at I-4.

[4] CR at I-5, PR at I-4.

[5] CR at I-5, PR at I-4.

[6] CR at I-5, PR at I-4.

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

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

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

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

> biodiesel, which is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, including biologically-based waste oils or greases, and other biologically based oil or fat sources. The investigations cover biodiesel in pure form (B100) as well as fuel mixtures containing at least 99 percent biodiesel by volume (B99). For fuel mixtures containing less than 99 percent biodiesel by volume, only the biodiesel component of the mixture is covered by the scope of the investigations.
>
> Biodiesel is generally produced to American Society for Testing and Materials International (ASTM) D6751 specifications, but it can also be made to other specifications. Biodiesel commonly has one of the following Chemical Abstracts Service (CAS) numbers, generally depending upon the feedstock used: 67784–80–9

(…Continued)
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).

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

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

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

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

(soybean oil methyl esters); 91051–34–2 (palm oil methyl esters); 91051–32–0 (palm kernel oil methyl esters); 73891–99–3 (rapeseed oil methyl esters); 61788–61–2 (tallow methyl esters); 68990–52–3 (vegetable oil methyl esters); 129828–16–6 (canola oil methyl esters); 67762–26–9 (unsaturated alkylcarboxylic acid methyl ester); or 68937–84–8 (fatty acids, C12–C18, methyl ester).[15]

Biodiesel is a renewable fuel produced from many types of feedstocks including soybean oil, palm oil, canola oil, corn oil, tallow, lard, and used cooking oil by the process of transesterification.[16] It is generally used as a transportation or heating fuel or blended with petroleum-based diesel fuel ("petrodiesel") and used in various concentrations.[17]

A. Arguments of the Parties

Petitioner contends that the domestic like product should be defined to be coextensive with the scope of the investigations. It asserts that all biodiesel — whether B100, B99, soybean oil-based, or palm oil-based— shares the same basic physical characteristics and is used either as a standalone fuel or blended with petrodiesel for use in transportation or heating fuel, has common channels of distribution, and is manufactured using similar equipment through similar production processes. [18] The Argentine and Indonesian Respondents indicated that they accept petitioner's proposed definition for purposes of the preliminary phase of the investigations.[19]

B. Analysis

Based on the record, we define a single domestic like product consisting of all biodiesel within the scope of these investigations.

Physical Characteristics and Uses. Although biodiesel within the scope differs in its precise composition since it is produced from different feedstocks (types of oil), all biodiesel consists of mono-alkyl esters of long-chain fatty acids and all biodiesel within the scope meets

[15] *Biodiesel from Argentina and Indonesia: Initiation of Less-Than-Fair-Value Investigations*, 82 Fed. Reg. 18428, 18432 (April 19, 2017); *Biodiesel from Argentina and Indonesia: Initiation of Countervailing Duty Investigations*, 82 Fed. Reg. 18423, 18427 (April 19, 2017). The B100 product subject to the investigations is currently classifiable under subheading 3826.00.1000 of the Harmonized Tariff Schedule of the United States (HTSUS), while the B99 product is currently classifiable under HTSUS subheading 3826.00.3000. *Id.*

[16] Petition at 9; CR at I-3 and I-9, PR at I-3 and I-7.

[17] CR at I-16 to I-18, PR at I-13.

[18] Petitioner's Brief, Answers to Staff Questions at 5-7.

[19] Tr. at 78 (Janzen, Porter).

the same ASTM D6751 standard specification.[20] All biodiesel within the scope has the same use; it is primarily blended with petrodiesel for transportation or used as heating oil.[21]

Manufacturing Facilities, Production Processes and Employees. Regardless of the feedstock, the transesterification production process is generally the same for all biodiesel.[22] Certain feedstocks, such as used cooking oil, may require more pretreatment.[23]

Channels of Distribution. All domestically produced biodiesel is sold through similar channels of distribution to petrodiesel producers, independent blenders/distributors, and retail locations.[24]

Interchangeability. Use of a particular oil or fat feedstock produces biodiesel with characteristics that vary slightly according to which feedstock is used.[25] There are also different grades of biodiesel, but the distinctions are relatively minor.[26] Biodiesel meeting the ASTM standard is generally used interchangeably regardless of feedstock.[27]

Producer and Customer Perceptions. Petitioner contends that all biodiesel within the scope that meets the ASTM standard is used interchangeably and is perceived to be the same product.[28]

Price. Information on the record indicates that prices for domestically produced biodiesel vary not so much based upon the feedstock used or any other particular characteristic of the product, but whether or not Renewable Identification Numbers (RINs) and rights to the federal blender's tax credit (BTC) were included with the biodiesel.[29]

Conclusion. Evidence on the record of these preliminary phase investigations indicates that all domestically produced biodiesel shares the same physical characteristics and uses and is used interchangeably. Biodiesel is generally produced through the same production process, and is used for transportation and heating fuel. All biodiesel is sold through the same channels of distribution. In light of the above and the lack of any contrary argument, we define the domestic like product as biodiesel, coextensive with the scope.

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[20] CR at I-13 to I-15, PR at I-10 to I-12.

[21] CR at I-16 to I-18, PR at I-13 to I-14. In particular, the blending of 0.1 percent to 1.0 percent petrodiesel with biodiesel to create B99 does not cause B99 to have distinct properties from B100. *See* CR at II-11 to II-12, PR at II-7. *See also* CR at D-3 to D-11, PR at D-3 (describing significance of the blending of B100 to B99).

[22] Tr. at 172, 181, 186 (Stone, Morton, Soanes).

[23] Tr. at 206 (Stone).

[24] CR/PR at Table II-1; Petitioner's Brief, Answers to Staff Questions at 6.

[25] CR at I-12, PR at I-10. Respondents contend that biodiesel produced from palm oil has somewhat different properties, but palm oil is not used in the United States to produce biodiesel. CR at III-11, PR at III-6. Soybean oil, corn oil, and canola oil represent about 77 percent of the feedstock used in domestic production of biodiesel. Argentine Respondents' Brief at 24.

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

[27] CR at I-13, PR at I-10; Petitioner's Brief, Answers to Staff Questions at 6.

[28] Petitioner's Brief, Answers to Staff Questions at 6-7.

[29] *See* CR at V-6 to V-7, PR at V-4 to V-5.

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[30] 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.

There are two sets of domestic industry issues in these investigations. The first concerns whether certain blending activities constitutes domestic production. The second concerns whether appropriate circumstances exist to exclude any producer from the domestic industry pursuant to the statutory related parties provision.

A. Sufficient Production-Related Activities

In deciding whether a firm qualifies as a domestic producer of the domestic like product, the Commission generally analyzes the overall nature of a firm's U.S. production-related activities, although production-related activity at minimum levels could be insufficient to constitute domestic production.[31]

Both biodiesel in pure form (B100), as well as fuel mixtures containing at least 99 percent biodiesel by volume (B99), fall within the definition of the domestic like product. These investigations raise the issue of whether blending B100 with small amounts of petrodiesel (.01 percent to 1.00 percent) to produce B99 constitutes production of the domestic like product. If blending B100 to B99 constitutes domestic production, then blenders of B99 are members of the domestic industry.

Petitioner contends that blending to produce B99 does not constitute domestic production.[32] It describes the blending as a minor activity that is insufficient to constitute domestic production because it involves minimal or no additional investment, expertise, or employment. The only value it adds, petitioner argues, is that it qualifies the blender for the BTC.[33] Respondents have not argued that blending constitutes domestic production.[34]

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[30] 19 U.S.C. § 1677(4)(A).

[31] The Commission generally considers six factors: (1) source and extent of the firm's capital investment; (2) technical expertise involved in U.S. production activities; (3) value added to the product in the United States; (4) employment levels; (5) quantity and type of parts sourced in the United States; and (6) any other costs and activities in the United States directly leading to production of the like product. No single factor is determinative and the Commission may consider any other factors it deems relevant in light of the specific facts of any investigation. *Diamond Sawblades and Parts Thereof from China and Korea*, Inv. Nos. 731-TA-1092-93 (Final), USITC Pub. 3862 at 8-11 (July 2006).

[32] *See* Petition at 97 n.308; Petitioner's Brief at 3, Answers to Staff Questions at 3-5.

[33] Petitioner's Brief, Answers to Staff Questions at 3-5.

[34] *See* Tr. at 78-79 (Doyle).

The Commission collected information from domestic producers and importers concerning the nature and extent of their B99 blending operations.[35] Both domestic producers and importers almost invariably described blending as a minimally complex activity that requires little or no technical expertise, capital investment, or additional employment.[36] The additional costs required for blending are described as minimal and are often only the cost of the blended petrodiesel.[37] Any value added by blending to produce B99 appears limited to triggering eligibility for the BTC.[38]

Given these considerations and the lack of any contrary argument, the record clearly indicates that the blending of B100 to B99 is not production of the domestic like product. Accordingly, we do not include blenders in the definition of the domestic industry.

B. Related Parties

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[39] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[40]

As explained further below, three domestic producers – Louis Dreyfus Company Agricultural Industries LLC ("Louis Dreyfus"), Cargill, Inc. ("Cargill"), and American Greenfuels, LLC. ("American Greenfuels") – are subject to exclusion under the related party provision.

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[35] *See* CR/PR at Appendix D. When asked to rate the complexity, intensity, and importance of their firms' B-99 blending operation on a 1 to 5 scale (with 1 being least complex and 5 being most), the average rating was 1.28 from 25 domestic producers and 2.333 from 12 importers). CR/PR at Table D-1.

[36] *See* CR/PR at Table D-2 and D-3.

[37] *See* CR/PR at Table D-2 and D-3.

[38] *See* CR/PR at Table D-2 and D-3.

[39] *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).

[40] 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.

1. Arguments of the Parties

Petitioner's Arguments. Petitioner contends that Louis Dreyfus and Cargill should be excluded from the domestic industry because they benefited from their imports of subject merchandise. Petitioner contends that Louis Dreyfus's import operations predominate over its domestic production and that its affiliate in Argentina is that country's largest producer and exporter of biodiesel. Petitioner maintains that the Argentine exporter ships most of its production to the United States in such a manner as to minimize competition with the U.S. affiliate's production and it ***.[41]

Petitioner also argues that Cargill should be excluded from the domestic industry. It asserts that Cargill's imports of subject merchandise from Argentina have increased, it ***, it shields its domestic production from competition with the subject imports, and its *** the industry average.[42]

Respondents' Arguments. Cargill opposes its exclusion from the definition of the domestic industry. Cargill argues its primary interest lies with its U.S. production rather than imports. It calculates that over the 2014-16 period of investigation ("POI"), *** percent of its total U.S. shipments were of U.S.-produced biodiesel. Furthermore, Cargill explains that it imported subject merchandise from Argentina biodiesel because ***.[43]

2. Analysis

Below we examine whether appropriate circumstances exist to exclude any of the related party producers from the domestic industry.

Cargill. Cargill was the *** largest domestic producer in 2016, accounting for *** percent of domestic production.[44] It is a related party because its wholly-owned subsidiary, Cargill SACI, is an exporter of the subject merchandise and because Cargill directly imported subject merchandise from Argentina during the POI.[45] Imports of subject merchandise by Cargill were *** gallons in 2015 (the equivalent of *** percent of Cargill's domestic production), and *** gallons in 2016 (the equivalent of *** percent of Cargill's domestic production).[46] The company ***.[47] Cargill explained that it ***.[48]

We find that the appropriate circumstances do not exist to exclude Cargill from the domestic industry. Its primary interest lies in domestic production. Its U.S. production was considerably larger than its imports of subject merchandise and its stated reason that it

[41] Petitioner's Brief at 5-6.

[42] Petitioner's Brief at 7.

[43] Cargill's Brief at 3.

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

[45] CR/PR at Tables III-2 and III-10.

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

[47] CR/PR at Table III-1. Cargill's operating income to net sales ratio with sales of RINs included was ***. *See* CR/PR at Table VI-3.

[48] Cargill's Brief at 3. Cargill's capacity utilization was *** percent in 2014, *** percent in 2015, and *** percent in 2016. CR/PR at Table III-5.

imported subject merchandise because of its inability to produce more domestically ***. Second, there is no indication that its *** shielded it from subject imports to any significant degree.

Louis Dreyfus. Domestic producer Louis Dreyfus is a related party both because it imported subject merchandise from Argentina during the POI and because it is related to an importer and an exporter of the subject merchandise.[49] Louis Dreyfus is the *** largest domestic producer, accounting for *** percent of domestic production during 2016.[50] Imports of subject merchandise by Louis Dreyfus were *** gallons in 2016, which was the equivalent of *** percent of its domestic production that year, the only year it imported subject merchandise.[51] It *** and indicated that it imported because ***.[52]

The ***. There is no indication that its limited quantity of imports of the subject merchandise shielded it from subject imports to any significant degree. Accordingly, we find that appropriate circumstances do not exist to exclude Louis Dreyfus from the domestic industry.

American Greenfuels. American Greenfuels is a related party because its parent, Kolmar Americas, Inc., imported subject merchandise during the POI. American Greenfuels began production in 2015 and only accounted for *** percent of domestic production during 2016.[53] Kolmar Americas, Inc.'s imports of subject merchandise from Argentina totaled *** gallons in 2015 and *** gallons in 2016.[54] American Greenfuels' production was *** gallons in 2015 and *** gallons in 2016.[55] Thus, the ratio of its parent's imports of subject merchandise to its production was *** percent in 2015 and *** percent in 2016. American Greenfuels *** the petitions.[56]

American Greenfuels' interests appear to lie in domestic production as it began production and expanded its facility during the POI and it did not directly import any subject merchandise; moreover, its parent company's imports of subject merchandise decreased ***. There is no evidence that it has benefitted from its relationship with Kolmar Americas, Inc. No party has argued for American Greenfuels to be excluded from the domestic industry. In light

[49] Louis' Dreyfus's parent company is Louis Dreyfus Company Claypool Holdings LLC, an importer of subject merchandise. Louis Dreyfus is also affiliated with subject exporter LDC Argentina SA. CR/PR at Table III-2; CR at VII-3 n.8, PR at VII-3 n.8.

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

[51] CR/PR at Table III-10. Louis Dreyfus' operating income to net sales ratio with independent RINs sales included was ***. *See* CR/PR at Table VI-3

[52] CR/PR at Table III-10. Louis Dreyfus's capacity utilization in 2016 was *** percent. CR/PR at Table III-5.

[53] CR/PR at Table III-1, VI-1. American Greenfuels stated that it expanded its facility from *** CR/PR at Table II-3. Its capital expenditures totaled $***. American Greenfuels' Questionnaire Response at III-14.

[54] Kolmar Americas, Inc.'s Questionnaire Response at II-8a.

[55] American Greenfuels' Questionnaire Response at II-9.

[56] *See* CR/PR at Tables III-1 and American Greenfuels' Questionnaire Response. American Greenfuels's operating income to net sales ratio with independent RINs sales included was ***. *See* CR/PR at Table VI-3.

of these considerations, we find that appropriate circumstances do not exist to exclude American Greenfuels from the domestic industry.

Given our decision not to exclude any related parties, we define the domestic industry to include all domestic producers of biodiesel.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of 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.[57] Subject imports from Argentina and Indonesia respectively accounted for 63.4 percent and 15.6 percent of total U.S. imports of biodiesel in the 12-month period preceding the filing of the petition (March 2016 through February 2017).[58] Because these percentages exceed the statutory negligibility threshold, we find that subject imports from Argentina and Indonesia are not negligible.

VI. Cumulation

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

(1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
(2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
(3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
(4) whether the subject imports are simultaneously present in the market.[59]

[57] 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)).

[58] CR at IV-7, PR at IV-6.

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

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.[60] Only a "reasonable overlap" of competition is required.[61]

A. Arguments of the Parties

The parties dispute whether the statutory prerequisites for cumulation are satisfied. Petitioner asserts that the four factors establish a reasonable overlap of competition among subject imports and the domestic like product while the Indonesian Respondents argue that the certain product distinctions make cumulation inappropriate.[62]

Petitioner's Arguments. Petitioner asserts that biodiesel from subject sources and the domestic like product is generally fungible as all biodiesel must be registered with the EPA to qualify for sale in the United States as transportation fuel. It argues biodiesel fuel is produced to ASTM specification D6751 and is either sold as heating oil or as a blend stock into petroleum diesel. It asserts that the only reported limitations to interchangeability were that biodiesel from Indonesia qualifies for a different, less valuable, RIN (D6) than does biodiesel from the United States or Argentina (which qualifies for a D4 RIN) making biodiesel from Indonesia less valuable.[63] Petitioner also acknowledges that biodiesel from Indonesia is less suitable for use as a transportation fuel in cold weather due to its higher cloud point.[64] Notwithstanding differences in RIN value or cloud point, it contends that perfect fungibility is not required under the "reasonable overlap" standard and there is no dispute that subject imports from Indonesia compete with the domestic like product and subject imports from Argentina in the U.S. market.[65] Petitioner further argues that sales of the domestic like product and subject imports from Indonesia and Argentina are concentrated in the independent blenders/distributors

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

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

[62] Petitioner's Brief, Answers to Staff Questions at 8-12.

[63] There are different classes of RINs depending on the feedstock. A D4 RIN for soybean oil feedstock and a D6 RIN for palm oil feedstock are the most common. CR at I-21, PR at I-16. The D4 RIN is more valuable because it can be used to satisfy the biomass-based diesel (biodiesel), advanced biofuel, and total renewable fuel standard obligations under the Renewable Fuel Standard program. The D6 RIN can only be used to satisfy the total renewable fuel obligation. *See* EPA Final Rule, *Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018*, 81 Fed. Reg. 89746, 89796 nn.196, 197 (Dec. 12, 2106) ("EPA Final Rule"). The difference in value of D4 and D6 RINs ranged from 4 to 30 cents in 2016. *See* Tr. at 111 (Whitney).

[64] Cloud point is the temperature at which small solid crystals start to form and it begins to congeal. CR at I-13 n.21, PR at I-10; Tr. at 49 (Cummings).

[65] Petitioner's Brief, Answers to Staff Questions at 9.

channel and all three were simultaneously present during all seasons and were sold in overlapping geographic regions.[66]

Respondents' Arguments. Indonesian Respondents argue that, according to the EPA, Indonesian PME (palm oil-based biodiesel) is not biodiesel as a matter of U.S. environmental regulation and is instead a "renewable fuel," a distinction which means it earns a D6 RIN rather than the D4 RIN that soybean oil-based biodiesel from Argentina generates. This, in addition to the higher cloud point of the palm oil-based Indonesian product, results in customers placing a lower value on subject imports from Indonesia.[67]

Indonesian Respondents contend that, due to its higher cloud point, subject imports from Indonesia are unacceptable to customers such as *** in the Northeast. Further, they contend that subject imports from Indonesia are absent from certain major U.S. markets, including California, Minnesota, Oregon, and New York City, which effectively or outright prohibit the participation of palm-based biodiesel in biofuels programs.[68]

With respect to presence in the market, Indonesian Respondents contend that subject imports from Indonesia have been entirely absent from the U.S. market since 2016, while the domestic like product (none of which is palm oil-based) and subject imports from Argentina have continued to participate in the U.S. market.[69] Because of these asserted product differences and distinctions in the manner in which it participates in the U.S. market, Indonesian Respondents assert that subject imports from Indonesia should not be cumulated.[70]

B. Analysis and Conclusion

The threshold requirement for cumulation is satisfied because petitioner filed the antidumping and countervailing duty petitions with respect to Argentina and Indonesia on the same day, March 23, 2017.[71] As discussed below, we find a reasonable overlap of competition between and among the subject imports from both countries and the domestic like product.

Fungibility. The record in the preliminary phase of these investigations indicates that biodiesel is at least moderately fungible, regardless of source. All biodiesel is produced to ASTM standard D6751 specifications.[72] U.S. producers and importers generally perceive products from different sources to be interchangeable, including with respect to subject imports from Indonesia.[73] Additionally, at least three purchasers that responded to the lost

[66] Petitioner's Brief, Answers to Staff Questions at 10-11.
[67] Indonesian Respondents' Brief at 13-14.
[68] Indonesian Respondents' Brief at 15.
[69] Indonesian Respondents' Brief at 15-17.
[70] Indonesian Respondents' Brief at 18-19.
[71] None of the statutory exceptions to cumulation is applicable.
[72] CR at I-15, PR at I-12.
[73] The great majority of responding U.S. producers reported that biodiesel from all sources was either "always" or "frequently" interchangeable. Similarly, almost all responding importers reported that biodiesel from Argentina and the domestic like product were either "always" or "frequently" interchangeable.
(Continued…)

sales lost revenue survey reported purchasing imports from both subject countries instead of domestically produced products.[74] Consequently, the record does not support Indonesian Respondents' contentions that product distinctions between subject imports from Indonesia, on the one hand, and subject imports from Argentina or the domestic like product, on the other, are of sufficient magnitude to support a finding that the products are not fungible.[75]

Channels of Distribution. Almost half of domestic production and the great majority of subject imports from both Argentina and Indonesia were sold to distributors and independent blenders.[76]

Geographic Overlap. U.S. producers reported selling biodiesel to all regions of the contiguous United States.[77] Subject imports from Argentina were sold in all regions while subject imports from Indonesia were sold in the Southeast, Central Southwest, and Northeast.[78] Subject imports from Argentina and Indonesia both entered at ports at the Southern and Eastern borders of the United States.[79] While there are state and local restrictions on palm oil-based biodiesel, the record indicates that they affect a relatively small portion of the overall market.[80]

Simultaneous Presence in Market. Subject imports from both countries were present in the U.S. market during 26 months of the 36-month POI.[81]

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The majority of importers reported that subject imports from Argentina and subject imports from Indonesia were "sometimes" interchangeable, while the balance of responses indicated that they were either "always" or "frequently" interchangeable. Half of the responding importers indicated that the domestic like product and subject imports from Indonesia were "always" or "frequently" interchangeable and half indicated that they were "sometimes" interchangeable. When comparing subject imports from Indonesia with the domestic like product or subject imports from Argentina, no importers indicated they were "never" interchangeable. CR/PR at Table II-5.

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

[75] The primary limitations on substitutability are that: (1) palm oil-based Indonesian biodiesel is less suitable for use as a transportation fuel in cold weather because of its higher cloud point and (2) biodiesel from Indonesia qualifies for a less valuable D6 RIN than does biodiesel from the United States or Argentina (D4), making it less valuable. *See* CR at I-22 and II-19, PR at I-17, II-12. In any final phase investigations, we will reexamine the extent to which product distinctions limit the fungibility of subject imports from Indonesia.

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

[77] CR at II-4, PR at II-2.

[78] CR/PR at Table II-2.

[79] *See* CR/PR at Table IV-7.

[80] The state and local restrictions mean that there is "roughly 13 percent of U.S. biodiesel consumption from which Indonesian PME is excluded." Indonesian Respondents' Brief at 6. In any final phase investigations, we will examine the extent to which state and local regulations limit the participation of subject imports from Indonesia in the U.S. market.

[81] CR/PR at Table IV-6. Pricing data for product 3 also show sales of subject imports from Argentina, subject imports from Indonesia, and the domestic product during 11 of the 12 quarters of the 3 year POI. CR/PR at Table V-5.

Conclusion. The record indicates that there is a reasonable overlap of competition between and among subject imports and the domestic like product. In particular, the record shows at least moderate fungibility between the domestic like product and imports from each subject source, notwithstanding certain product differences. There is also substantial geographic overlap notwithstanding some state and local restrictions on palm oil-based biodiesel. We consequently consider subject imports from Argentina and Indonesia on a cumulated basis in our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

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

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[82] 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.[83] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[84] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[85] 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."[86]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[87] 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.[88] In identifying a

[82] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here.

[83] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[84] 19 U.S.C. § 1677(7)(A).

[85] 19 U.S.C. § 1677(7)(C)(iii).

[86] 19 U.S.C. § 1677(7)(C)(iii).

[87] 19 U.S.C. §§ 1671b(a), 1673b(a).

[88] *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).

causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[89]

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.[90] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[91] Nor does

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

[90] 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.

[91] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n* , 266 F.3d at 1345. ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood*

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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.[92] It is clear that the existence of injury caused by other factors does not compel a negative determination.[93]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports" and the Commission "ensure{s} that it is not attributing injury from other sources to the subject imports."[94] [95] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[96]

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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.").

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

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

[94] *Mittal Steel*, 542 F.3d at 877-78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 792 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[95] Commissioner Kieff does not join this paragraph or the following three paragraphs. He points out that the Federal Circuit, in *Bratsk*, 444 F.3d 1369, and *Mittal Steel*, held that the Commission is *required*, in certain circumstances when analyzing present material injury, to consider a particular issue with respect to the role of nonsubject imports, without reliance upon presumptions or rigid formulas. The Court has not prescribed a specific method of exposition for this consideration. *Mittal Steel* explains as follows:

> What *Bratsk* held is that "where commodity products are at issue and fairly traded, price competitive, non-subject imports are in the market," the Commission would not fulfill its obligation to consider an important aspect of the problem if it failed to consider whether non-subject or non-LTFV imports would have replaced LTFV subject imports during the period of investigation without a continuing benefit to the domestic industry. 444 F.3d at 1369. Under those circumstances, *Bratsk* requires the Commission to consider whether replacement of the LTFV subject imports might have occurred during the period of investigation, and it requires the Commission to provide an explanation of its conclusion with respect to that factor.

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The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[97] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

Mittal Steel clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record 'to show that the harm occurred 'by reason of' the LTFV imports,'" and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[98] Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

The progression of *Gerald Metals*, *Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.[99]

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

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542 F.3d at 878.

[96] *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.").

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

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

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

evidence standard.[100] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[101]

B. Conditions of Competition and the Business Cycle

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

1. Overview of the Renewable Fuel Market

The Renewable Fuel Standard ("RFS") program, created by the U.S. Environmental Protection Agency ("EPA") under the authority of the Energy Policy Act of 2005, established the first renewable fuel mandates in the United States. In 2007, Congress expanded and modified the RFS program to include biodiesel.[102] The RFS program is administered by the EPA in consultation with the U.S. Department of Agriculture and the U.S. Department of Energy.[103]

The RFS program's stated goals are to reduce greenhouse gas emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil.[104] The EPA does so by requiring minimum volumes of renewable fuel to replace or reduce the quantity of petroleum-based transportation fuel, heating oil, or jet fuel.[105] For a biofuel to qualify toward the RFS mandated volume, it must be made from renewable biomass, and it must also achieve a significant reduction in life cycle greenhouse gas emissions compared to baseline petroleum. Biodiesel or what the EPA calls "biomass-based diesel" is one of the four renewable fuel categories in the RFS; the three other categories are cellulosic biofuel, advanced biofuel and total renewable fuel.[106] The EPA has set minimum volumes for biodiesel and the other fuel categories that have grown each year since 2013.[107]

In order to achieve its renewable fuel volume targets, EPA requires an "obligated party," a term which encompasses producers and importers of gasoline or diesel fuel, to meet an annual renewable volume obligation (RVO). The RVO is calculated by multiplying an obligated

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

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

[102] CR at I-21, PR at I-16.

[103] CR at VI-2 n.4, PR at VI-1 n.4.

[104] EPA Final Rule, 81 Fed. Reg. at 89747.

[105] CR at VI-2 n.4, PR at VI-1 n.4.

[106] EPA Final Rule, 81 Fed. Reg. at 89747.

[107] EPA Final Rule, 81 Fed. Reg. at 89747. The biodiesel volume requirement is nested within the advanced biofuel requirement and the advanced biofuel requirement is, in turn, nested within the total renewable fuel volume requirement. This means that each gallon of biodiesel used to satisfy the biodiesel volume requirement can also be used to satisfy the advanced fuel and total renewable fuel requirements. *Id.* at 89748.

party's total gasoline and diesel sales by the annual renewable fuel percentage standards announced by EPA in a rulemaking scheduled each year.[108]

The EPA ensures compliance with the RVOs through the use of a tradable credit system under which obligated parties must submit to EPA Renewable Identification Numbers (RINs) that equal the number of gallons of renewable fuel in their RVO.[109] Each gallon of biodiesel produced in or imported into the United States generates about 1.5 RINs.[110] There are different classes of RINs depending on the feedstock used to produce the renewable fuel. A D4 RIN is generated by soybean oil feedstock while a D6 RIN attaches to biodiesel produced from palm oil feedstock.[111] Each RIN type has a different market value, but the RIN prices track each other and are relatively close in value.[112]

RINs may be used by the party that generates them to satisfy its RVO or traded and sold on a secondary market so that other obligated parties may use them to satisfy their RVOs.[113] RINs are separated when owned by an obligated party or blended to B80 by a producer or blender.[114] The EPA Moderated Transaction System (EMTS) is used to register RIN transactions.[115]

A federal blender's tax credit (BTC) is another important feature of the biodiesel market. The BTC drives production and importation of biodiesel by permitting blenders of U.S.-produced or imported biodiesel to claim a credit of $1 per gallon against their U.S. federal tax liability.[116] The BTC can be used to offset tax liability or exchanged for cash, and is viewed as a revenue stream by market participants.[117] The blender's tax credit is intended to help make biodiesel prices competitive with petroleum diesel fuel.[118] Blenders often blend only one percent petrodiesel (or less) with biodiesel and sell the blend as B99 to be eligible for the credit, and domestic biodiesel producers generally sell biodiesel as B99 when the BTC is in place.[119] The seller and purchaser of biodiesel often allocate the right to the BTC in sales contracts, often even splitting the right to the credit 50/50.[120]

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[108] CR at I-22 n.61, PR at I-16.

[109] CR at I-21 to I-22, PR at I-16.

[110] CR at I-22, PR at I-17.

[111] CR at I-22, PR at I-17.

[112] *See* EPA Final Rule, 81 Fed. Reg. at 89797, Fig. VI.B.2-1. A D4 RIN should always be more valuable than a D6 RIN because when an obligated party retires a biodiesel D4 RIN to help satisfy its biodiesel obligation, the nested nature of the biodiesel standard means that this RIN also counts towards satisfying its advanced and total renewable fuel obligations. D6 RINs count towards only the total renewable fuel obligation. *Id.* at 89796 n.196.

[113] CR at I-22, PR at I-16.

[114] Tr. at 122 (Whitney).

[115] CR at I-22, PR at I-16.

[116] CR at II-13, PR at II-8.

[117] CR at VI-3, VI-15 n.11, PR at VI-2, VI-7, n.11.

[118] CR at I-25, VI-3 n.6, PR at VI-2 n.6. The BTC results in lower sales values for biodiesel. CR at VI-3 n.8, PR at VI-2 n.8.

[119] Tr. at 39 (Doyle).

[120] CR at II-13, II-14, VI-3 n.8, PR at II-9,

The availability of the BTC was uncertain at times during the POI. It lapsed on December 31, 2013 and was retroactively reinstated for 2014 on December 19, 2014. On December 18, 2015, the BTC was retroactively reinstated for 2015 and was in effect until December 31, 2016.[121] The BTC lapsed again on January 1, 2017, and the parties dispute marketplace participants' view of the likelihood of its renewal for 2017.[122]

2. Demand Conditions

Demand for biodiesel is largely driven by the RFS's increasing volume requirements.[123] Demand is seasonal, increasing in the second and third quarters of the year and stabilizing or declining in the fourth quarter.[124] Apparent U.S. consumption also increases in the fourth quarter if the tax credit is expiring and has not yet been renewed.[125] Apparent U.S. consumption of biodiesel increased from 1.4 billion gallons in 2014 to 1.5 billion gallons in 2015 and 2.2 billion gallons in 2016.[126]

3. Supply Conditions

There are at least 25 producers of biodiesel in the United States, with the six largest producers (*** accounting for well over half of domestic biodiesel production.[127] The domestic industry was the largest supplier to the U.S. market over the POI. Its share of apparent U.S. consumption was 86.2 percent in 2014, 76.7 percent in 2015, and 68.0 percent in 2016.[128]

The U.S. Energy Information Administration ("EIA"), an agency within the Department of Energy, collects biodiesel production and capacity information.[129] Its data show somewhat higher production and capacity than do the questionnaire data, but both indicate increases in capacity during the POI.[130] EIA data indicate that the domestic industry increased its

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[121] CR at VI-3 n.7, PR at VI-2 n.7.

[122] CR at II-14, VI-3 n.7, PR at II-8, VI-2 n.7. *Compare* Petitioner's Brief at 12-13 (citing Tr. at 141 (Cummings) ("the probability of us getting a blender's tax credit … is perceived in the buyer community as very low")) *with* Argentine Respondents' Brief at 49 ("virtually all industry participants believe that the tax credit will be reinstated and made retroactive to January 1, 2017").

[123] The minimum consumption volume was 1.28 billion gallons in 2013 and increased to 1.90 billion gallons in 2016. The EPA set the minimum annual consumption volume at 2.00 billion gallons for 2017 and 2.10 billion gallons for 2018. CR at VI-2 n.4, PR at VI-1 n.4.

[124] CR at II-12, IV-16, PR at II-7, IV-13.

[125] *See* CR/PR at Table F-1 (monthly apparent consumption figures reflect elevated apparent U.S. consumption in December).

[126] CR/PR at Table IV-9.

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

[128] CR/PR at Table IV-9.

[129] See CR/PR at Table III-4.

[130] *Compare* CR/PR at Table III-4 (EIA data) *with* Table III-5 (questionnaire data). Argentine Respondents and Cargill contend that the EIA data overstate U.S. capacity because they include older (Continued…)

production capacity from 2.1 billion gallons in 2014 to 2.3 billion gallons in 2016 while questionnaire data show an increase from 1.4 billion gallons in 2014 to 1.8 billion gallons in 2016.[131]

Soybean oil was used to produce just over half of the biodiesel produced in the United States.[132] Some of the larger domestic producers are located near soybean processing plants that crush soybeans to produce animal feed and soybean oil; the soybean oil is then used to produce biodiesel.[133]

Palm oil, which is not used as a biodiesel feedstock in the United States, is used for virtually all biodiesel production in Indonesia.[134] Because palm oil is the feedstock, biodiesel from Indonesia generally does not meet the RFS program's minimum greenhouse gas reduction threshold and therefore would not generate RINs when imported into the United States.[135] However, the EPA "grandfathered" two Indonesian production facilities (one owned by Wilmar and the other by Musim Mas) to continue supplying the U.S. market with biodiesel that qualifies as a renewable fuel and generates a D6 RIN upon importation.[136] All subject imports from Indonesia were from these facilities.[137] In contrast, biodiesel produced in Argentina is made exclusively from soybean oil and generates a D4 RIN, as does the domestic like product.[138]

Both domestic producers and importers generally sold biodiesel with RINs attached during the POI.[139] Domestic producers sold most of their biodiesel as B99 or B100 with RINs attached.[140] Importers generally sold subject imports from Argentina as B99 with RINs attached, although biodiesel from Argentina was also sold without RINs.[141] Importers sold subject imports from Indonesia as both B99 and B100 with or without RINs, though the product mix shifted towards B99 over the POI.[142] In 2016, U.S. shipments of subject imports from Indonesia were *** between biodiesel with RINs and biodiesel without RINs.[143]

(…Continued)
capacity that is not truly available or is inefficient. Argentine Respondents' Brief at 14; Cargill's Brief at 9-10.

[131] *See* CR/PR at Tables III-4 and III-5. ***. CR at III-8, PR at III-4.

[132] CR at III-10, PR at III-6.

[133] Tr. at 222 (Stone).

[134] CR at III-11, PR at III-6; CR/PR at Table IV-3 (based on responses to producer and foreign producer questionnaires).

[135] CR at VII-13, PR at VII-10.

[136] CR at VII-13, VII-14 n.28, PR at VII-10 to VII-11, VII-11 n.28.

[137] CR at VII-12 to VII-14, PR at VII-10 to VII-11.

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

[139] *See* CR/PR at Tables III-7 and IV-5.

[140] *See* CR/PR at Table III-7.

[141] *See* CR/PR at Table IV-5.

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

[143] CR at IV-12, PR at IV-9.

Cumulated subject imports increased their share of apparent U.S. consumption from 7.0 percent in 2014 to 25.1 percent in 2016.[144] One importer, BioSphere, accounted for *** the subject imports during 2016.[145] Nonsubject imports were relatively stable over the POI; their share of apparent U.S. consumption ranged from 5.6 percent to 6.9 percent.[146]

4. Substitutability and Other Conditions

The parties disagree regarding the level of substitutability between subject imports and the domestic like product, in particular the extent to which product distinctions with respect to biodiesel from Indonesia limit substitutability.[147] Those distinctions, (*i.e.,* a higher cloud point, state and local restrictions, and generating a D6 rather than D4 RIN) may restrict the use of biodiesel from Indonesia to certain locations and limit its use in colder weather.

Notwithstanding those differences, the subject imports from Argentina and Indonesia and domestically produced biodiesel are produced to an ASTM standard.[148] Further, as discussed above with respect to cumulation, while domestic producers and importers provided mixed responses, they agreed that there is at least some interchangeability of subject imports from Indonesia with the domestic like product and subject imports from Argentina.[149] We therefore find for purposes of these preliminary determinations that there is moderate-to-high substitutability between the subject imports and domestically produced biodiesel.[150]

The record also indicates that price is important in purchasing decisions. Responding purchasers most frequently cited price, availability/logistics and quality as the factors affecting their purchasing decisions.[151] All 13 responding purchasers listed price as among the top three purchasing factors in their purchasing decisions.[152]

U.S. producers generally sold biodiesel pursuant to short-term contracts while importers mostly sold biodiesel on the spot market.[153] Prices are generally tied to a published diesel price, an index known as the New York Harbor Ultralow Sulphur Diesel ("USLD") or the heating oil price listed on the New York Mercantile Exchange ("NYMEX").[154] The price of biodiesel is a function of the product itself, the RIN, if attached, and sometimes a portion of the BTC.[155] Biodiesel prices are also influenced by petrodiesel prices as they are substitutes, though B100 biodiesel typically sells at a premium due to the BTC.[156]

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[144] CR/PR at Table IV-9.
[145] CR/PR at Table IV-1.
[146] CR/PR at Table IV-9.
[147] See Petitioner's Brief at 14-16; Indonesian Respondents' Brief at 3-5.
[148] CR/PR at II-1.
[149] CR/PR at Table II-5.
[150] *See* CR at II-17, PR at II-10.
[151] CR/PR at Table II-4.
[152] CR/PR at Table II-4.
[153] CR/PR at Table V-2.
[154] CR at V-4, PR at V-3.
[155] CR at V-6, PR at V-4.
[156] *See* CR at II-17, VI-15 n.11, PR at II-10, VI-7 n.11; Indonesian Respondents' Brief at 20.

The price of soybean oil, a primary raw material for biodiesel production, fell overall during the POI, declining during 2014-2015 before increasing in 2016.[157] Raw material costs accounted for between 87 and 89 percent of COGs during the POI.[158]

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[159]

Cumulated subject imports increased during the period of investigation, with the most substantial increase occurring towards the latter portion of the period.[160] The quantity of cumulated subject imports rose from 97.8 million gallons in 2014 to 267.6 million gallons in 2015, and then to 551.1 million gallons in 2016, an increase of 463.7 percent.[161] The volume of subject imports rose at a much faster rate than apparent U.S. consumption,[162] and subject imports experienced significant gains in market share directly at the expense of the domestic industry.[163] Cumulated subject import market share rose from 7.0 percent in 2014 to 17.7 percent in 2015 and 25.1 percent in 2016.[164] By contrast, the domestic industry's market share declined by 18.2 percentage points from 2014 to 2016.[165]

For purposes of these preliminary determinations, we find that the volume of subject imports and the increase in that volume are significant both in absolute terms and relative to consumption in the United States.

D. Price Effects of the Subject Imports

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

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

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[157] CR/PR at V-1, Fig V-1.

[158] CR/PR at V-1.

[159] 19 U.S.C. § 1677(7)(C)(i).

[160] Petitioner noted that subject imports began to increase after the European Union imposed antidumping duties on biodiesel from Argentina and Indonesia in 2013. Tr. at 19-20 (Getlan). *See also* CR at VII-24, PR at VII-15.

[161] CR/PR at Tables IV-2 and C-1.

[162] Apparent U.S. consumption increased by 57.7 percent from 2014 to 2016. CR/PR at Table C-1.

[163] *See* CR/PR at Table IV-9.

[164] CR/PR at Table IV-9.

[165] The domestic industry's market share, as measured by quantity, was 86.2 percent in 2014, 76.7 percent in 2015, and 68.0 percent in 2016. CR/PR at Table IV-9.

(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.[166]

As discussed above, we find that there is a moderate-to-high degree of substitutability between subject imports and the domestic like product and that price is important in purchasing decisions.[167]

The Commission collected quarterly pricing data from U.S. producers and importers for three biodiesel products.[168] Twenty-three U.S. producers and eight importers provided usable pricing data for sales of the requested products, although not all firms reported prices for all products for all quarters.[169] Pricing data reported by these firms accounted for approximately 97.6 percent of U.S. producers' shipments of biodiesel, 35.3 percent of U.S. shipments of subject imports from Argentina, and 32.7 percent of shipments of subject imports from Indonesia during the POI.[170]

The pricing data show that the prices of cumulated subject imports were below those for U.S.-produced product in 46 of 58 quarterly comparisons from 2014 to 2016.[171] Underselling comparisons accounted for 76.0 percent of the reported pricing quantity of subject imports.[172] The quantity of subject imports in underselling comparisons was 328.8 million gallons, while the quantity that oversold the domestic product totaled 103.6 million gallons.[173] Margins of underselling ranged up to 76.1 percent, and margins of overselling ranged up to 74.0 percent.[174]

The utility of the pricing data is somewhat limited by complications in the manner in which biodiesel is priced, product distinctions, and other factors that influence prices. Subject imports from Indonesia only generate a D6 RIN rather than the D4 RIN that attaches to the domestic like product and subject imports from Argentina.[175] Further, the availability of the BTC and its allocation between buyers and sellers may have influenced reported prices for some

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[166] 19 U.S.C. § 1677(7)(C)(ii).

[167] CR at II-17 to II-18, PR at II-10.

[168] The three pricing products are the following:

Product 1.—B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

Product 2.—B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), including RIN value when sold as 1.5 RINs per gallon.

Product 3.—B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), sold without RINs. CR at V-5, PR at V-4.

[169] CR at V-5, PR at V-4.

[170] CR at V-5, PR at V-4.

[171] CR/PR at Table V-8.

[172] *See* CR/PR at Table V-8.

[173] CR/PR at Table V-8.

[174] CR/PR at Table V-8.

[175] CR at I-22, II-20, PR at I-17. The D6 RIN is less valuable than the D4 RIN though the price differences are relatively small. *See* EPA Final Rule, 81 Fed. Reg. at 89797, Fig. VI.B.2-1.

transactions but not others and was not accounted for in the pricing data; nor were local tax incentive programs.[176]

We have found above that price is important in purchasing decisions and the U.S. producer and importer sales data discussed above show predominant underselling during the POI. We also observe that the costs to the largest importer that directly imported large quantities of subject imports were consistently lower than the prices of domestically produced biodiesel.[177] Thus, despite the limitations of the pricing data, we find the underselling by cumulated subject imports to be significant.[178]

We have also considered whether the subject imports had significant price-depressing effects or had the effect of preventing price increases that otherwise would have occurred to a significant degree. Prices for the three domestically produced biodiesel pricing products fell during 2014 and 2015, before recovering somewhat during 2016.[179] Prices for domestically produced biodiesel declined overall for the three pricing products, with declines of *** percent, *** percent, and *** percent, respectively, from January 2014 to December 2016.[180]

As a result of these price declines, the domestic industry's average net sales values fell overall during the period.[181] The domestic industry cost of goods sold (COGS) to net sales ratio also rose from 98.1 percent in 2014 to 111.7 percent in 2016.[182] However, during this same period, raw material costs fell and prices for petrodiesel, a substitute for biodiesel, declined,

[176] The manner in which the right to the BTC was allocated between sellers and purchasers varied from transaction to transaction and likely would have affected contract prices. CR at V-6 to V-7, PR at V-4 to V-5.

Additionally, some states such as California, Illinois, Iowa, and Texas, also offer tax incentives for biodiesel. CR at II-14, V-7, PR at II-8, V-5. We invite the parties in comments on draft questionnaire to suggest how pricing information should be reported to account for factors such as different RIN values, the BTC, state tax credits, and pricing mechanisms tied to the heating oil market.

[177] The Commission collected quarterly purchase price data for direct imports of the subject merchandise by *** of product 1. Its imports accounted for *** percent of subject imports from Argentina and *** percent of subject imports from Indonesia in 2016. This importer's purchase costs for biodiesel from both Argentina and Indonesia were substantially below the prices for the domestic like product throughout those portions of the POI when comparisons were possible. *See* CR/PR at Table V-6, Fig. V-5.

[178] We have also considered information collected in the lost sales/lost revenue survey of purchasers concerning the relative pricing of the domestic like product and subject imports. Seven of nine purchasers reported that subject import prices were lower than U.S.-produced product, and four of these seven purchasers indicated that price was a primary reason for purchasing subject imports CR at V-20, PR at V-13; CR/PR at Table V-10.

[179] *See* CR/PR at Figs. V-2, V-3 and V-4.

[180] *See* CR/PR at Table V-7.

[181] Average net sales values including independent RIN sales declined from $3.37 per gallon in 2014 to $2.46 per gallon in 2016. CR/PR at Table VI-1.

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

both of which would have placed downward pressure on biodiesel prices.[183] In light of these factors, the present record does not support a conclusion that the decline in prices for the domestic like product or the increase in the domestic industry's COGS to net sales ratio has been a result of the cumulated subject imports rather than other factors.[184] We therefore do not conclude on the record of these preliminary phase investigations that subject imports depressed prices of the domestic like product or prevented price increases that otherwise would have occurred to a significant degree. We will seek additional information in any final phase of these investigations as to the factors that contributed to price declines for domestically produced biodiesel, including how declining petrodiesel prices and raw materials costs contributed to price declines observed during the POI.

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

E. Impact of the Subject Imports[185]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices.

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[183] *See* Indonesian Respondents' Brief at 20. As a result of declining raw material prices, the domestic industry's unit cost COGS declined from $3.30 per gallon in 2014 to $2.74 per gallon in 2016. CR/PR at Table VI-1

Further, the availability of BTC during 2016, and market expectations concerning the likelihood of renewal of the BTC during 2014-2015, affected prices over the POI. CR at V-6 to V-7, PR at V-4 to V-5. The availability of the BTC leads to lower prices than would have otherwise occurred. CR at VI-3 n.8, VI-15 n.11, PR at VI-2 n.8, VI-7 n.11.

[184] We have also considered the lost revenue information collected in a survey of purchasers in response to U.S. producers' reports of lost sales and lost revenues. Of the 13 purchasers that responded to the Commission's survey, four purchasers reported that U.S. producers had reduced prices in order to compete with lower-priced imports from subject countries. CR at V-23, PR at V-13.

[185] In its notice initiating the antidumping duty investigations, Commerce reported an estimated antidumping duty margin of 26.54 percent for imports of biodiesel from Argentina and an estimated margin of 28.11 percent for imports of biodiesel from Indonesia. *Biodiesel from Argentina and Indonesia: Initiation of Less-Than-Fair-Value Investigations*, 82 Fed. Reg. 18428, 18431 (April 19, 2017).

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."[186]

The domestic industry's performance indicators were generally weak over the POI despite strong increases in apparent U.S. consumption. The industry reported increasing operating losses over the POI, though these losses were offset by the BTC.[187] Measures of output increased, but less rapidly than apparent U.S. consumption. As a consequence, subject imports captured more of the U.S. market, and the domestic industry's market share declined steadily from 2014 to 2016.[188]

Increases in the industry's production, U.S. shipments, and total sales were not commensurate with the 57.7 percent increase in apparent U.S. consumption.[189] The domestic industry added to its capacity during the POI, whether measured by data obtained in the questionnaires or from the EIA.[190] The industry's capacity utilization rate based on questionnaire data was 75.5 percent in 2014, 75.4 percent in 2015 and 78.8 percent in 2016.[191] The domestic industry's inventories increased from 2014 to 2016.[192]

The domestic industry's production-related workers, wages paid, and total hours worked increased over the POI, but the average hours worked per worker declined.[193] The

[186] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[187] *See* CR/PR at Table VI-1. We collected financial data for the domestic industry both excluding and including independent sales of RINs. *E.g.*, CR/PR at Table VI-1. We have focused on the data including independent sales of RINs in our analysis. Biodiesel is produced with the expectation that it will generate RINs that have value to buyers and sellers of the biodiesel, and RINs are an important contributor to the value of the biodiesel. CR at VI-2 n.5, PR at VI-2 n.5. RINs are typically sold with the biodiesel but can be separated and sold independently. While we find it appropriate for purposes of our preliminary determinations to focus on financial data for the domestic industry that include sales of independent RINs, we invite the parties in any final phase investigations to comment on this issue.

[188] As measured by quantity, the market share of the domestic industry declined from 86.2 percent in 2014 to 76.7 percent in 2015 and 68.0 percent in 2016. CR/PR at Table IV-9.

[189] Production totaled 1.0 billion gallons in 2014, 1.1 billion gallons in 2015 and 1.4 billion gallons in 2016. CR/PR at Table III-5. The industry's U.S. shipments were 1.0 billion gallons in 2014, 1.0 billion gallons in 2015 and 1.4 billion gallons in 2016. CR/PR at Table III-6. Total net sales were 1.0 billion gallons in 2014, 1.1 billion gallons in 2015 and 1.4 billion gallons in 2016. CR/PR at Table VI-1.

[190] *See* CR/PR at Tables III-4 and II-5.

[191] CR/PR at Table III-5. EIA data show that the industry's capacity utilization rate fell from 60.7 percent in 2014 to 59.3 percent in 2015, and then increased to 68.9 percent in 2016. CR/PR at Table III-4.

[192] U.S. producers' end-of-period inventories were 31.4 million gallons in 2014, 47.2 million gallons in 2015, and 39.8 million gallons in 2016. CR/PR at Table III-9.

[193] The industry's number of production-related workers increased from 1,042 in 2014 to 1,154 in 2015 and 1,336 in 2016. CR/PR at Table III-11. Hours worked increased from 2.3 million in 2014 to 2.4 million in 2015 and 2.8 million in 2016. *Id*. The wages the industry paid to its workers increased from $65.9 million in 2014 to $74.8 million in 2015, and $85.5 million in 2016. *Id*. Average hours worked per worker decreased from 2,159 in 2014 to 2,099 in 2015 and then rose to 2,112 in 2016. *Id*.

industry's productivity increased overall from 2014 to 2016.[194] Average unit sales values fell and sales revenues declined.[195] The ratio of COGS to net sales was high and increased.[196] Gross profits turned into a gross loss during the POI.[197]

Operating losses increased from $79.8 million in 2014 to $91.6 million in 2015 and $574.6 million in 2016.[198] The domestic industry's operating loss margins likewise increased from 2.3 percent in 2014 to 3.2 percent in 2015 and then 16.7 percent in 2016.[199]

However, reflecting the large impact of the BTC on the finances of the industry,[200] the industry reported positive net income throughout the POI. Net income declined from $292.0 million in 2014 to $258.2 million in 2015, but then increased to $331.9 million in 2016, a year when BTC revenues soared.[201]

Through predominant underselling, subject import volume increased significantly in absolute terms from 2014 to 2016. Subject import market share also increased as subject imports pervasively undersold the domestic like product and took market share from the domestic industry. The reduced domestic industry market share in turn caused lower

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[194] The industry's productivity measured in gallons per hour decreased from 459.4 in 2014 to 441.4 in 2015, and then increased to 492.4 in 2014. CR/PR at Table III-11.

[195] The domestic industry's sales revenues fell from $3.5 billion in 2014 to $2.9 billion in 2015 and then increased to $3.4 billion in 2016, a figure below that of 2014. CR/PR at Table VI-1. Its average sales values declined from $3.24 per gallon in 2014 to $2.57 per gallon in 2015 and $2.22 per gallon in 2016. *Id.*

[196] The domestic industry's COGS as a ratio to net sales decreased from 98.1 percent in 2014 to 97.6 percent in 2015, but then increased to 111.7 percent in 2016. CR/PR at Table VI-1.

[197] The domestic industry's gross profits increased from $67.6 million in 2014 to $68.9 million in 2015 and then turned into a gross loss of $400.5 million in 2016. CR/PR at Table VI-1.

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

[199] CR/PR at Table VI-1. The industry's negative return on investment expressed as a ratio of operating losses to net assets worsened from 4.7 percent in 2014 to 5.5 percent in 2015 and 37.0 percent in 2016. CR at Table VI-6. However, the ratio of its net income to net assets improved overall, falling from 17.0 percent in 2014 to 15.4 percent in 2015, before increasing 21.3 percent in 2016. CR/PR at Table VI-6.

[200] Revenue from the BTC increased from $367.4 million in 2014 to $430.6 million in 2015 and $970.7 million in 2016. CR/PR at Table VI-1. The increase in revenue from the BTC in 2016 reflects its retroactive reinstatement in December 2015 as revenue from the BTC for sales that occurred in 2015 was likely shifted into 2016. CR at VI-3 n.7, PR at VI-2 n.7. Petitioners suggest that the Commission should reallocate the BTC revenue received by the industry to "normalize" it over the POI. Petitioners' Brief at 41-42. We have considered the revenue as it was received by the industry, which reflects the lapsing and subsequent reinstatement of the credit. In any case, we do not find the industry's reported increasing net income margins to be controlling in light of its operating losses and the statutory instruction that "{t}he 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." 19 U.S.C. § 1677(7)(J).

[201] CR/PR at Table VI-1. The industry's capital expenditures were $108.6 million in 2014, $53.2 million in 2015, and $78.0 million in 2016. CR/PR at Table VI-5. Its research and development expenses decreased from $*** in 2014 to $*** in 2015 and $*** in 2016. *Id*.

production, shipments, and sales than would have otherwise occurred given the strong growth in apparent U.S consumption.

Because the domestic industry, despite having the ability to increase its production and shipments,[202] was unable to increase its shipments commensurately with growing demand,[203] it lost revenues that it otherwise would have obtained. These lost revenues were reflected in its poor and declining gross and operating income. We accordingly find that the significant volume of cumulated subject imports, which gained market share at the expense of the domestic industry through significant underselling, had a significant impact on the domestic industry.

We have considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject imports. As discussed above, apparent U.S. consumption increased during the POI.[204] While nonsubject imports had an appreciable presence in the U.S. market, their market share, unlike that of the subject imports, showed little change between 2014 and 2016.[205] Moreover, imports of biodiesel from Canada, by far the largest source of nonsubject imports, were priced higher than the subject imports in the majority of comparisons.[206] Thus, other factors cannot explain the loss in market share, output, and revenues that we have attributed to the cumulated subject imports.

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[202] Respondents argue that domestic production capacity data are overstated and the industry was not able to meet growing demand. However, data from the EIA and questionnaire data indicate that the domestic industry operated at relatively modest capacity utilization rates during the POI, indicating it had the ability to increase production. *See* CR/PR at Tables III-4 and III-5. In any final phase investigations, we will reexamine information concerning the industry's production capacity to ensure that it accurately reflects practical production capability.

[203] Respondents have also argued that there is a mismatch between the location of production capacity in the Midwest and consumption of biodiesel, which they contend is concentrated on the coasts. Argentine Respondents contended that logistical constraints impede Midwestern producers from supplying the coastal markets. *See* Argentine Respondents' Brief at 16-17 (citing Tr. at 27-29 (Whitney). Mr. Whitney, a representative from one of the largest importers, BioSphere, indicated at the staff conference that "{d}omestic producers could not give me what I needed, where I needed it and when I needed it. ... {Domestic production} is in the Midwest, nowhere near Houston, Texas." Tr. at 27. Petitioner countered that consumption of biodiesel occurs in all regions of the United States and that domestic producer RBF has the largest biodiesel production facility in the Western hemisphere outside Houston on the Southern coast where over half of subject imports entered during 2016. Petitioner's Brief at 21-22. *See also* CR/PR at Table IV-8 (U.S. imports by port of entry). In any final phase investigations, we will seek additional information concerning the relationship between consumption and the location of domestic production facilities.

[204] Apparent U.S. consumption of biodiesel increased from 1.4 billion gallons in 2014 to 1.5 billion gallons in 2015 and 2.2 billion gallons in 2016. CR/PR at Table IV-9. The industry experienced its largest annual decline in operating income in 2016, despite much higher apparent U.S. consumption that year. *See* CR/PR at Table VI-1.

[205] As measured by quantity, nonsubject import market share was 6.8 percent in 2014, 5.6 percent in 2015, and 6.9 percent in 2016. CR/PR at Table IV-9.

[206] CR at E-3, PR at E-3. One domestic producer, ***, accounted for the majority of nonsubject imports from Canada. CR/PR at Tables III-10 and IV-1.

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

VIII. Conclusion

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

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 the National Biodiesel Board Fair Trade Coalition, Washington DC, on March 23, 2017, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of biodiesel [1] from Argentina and Indonesia. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
March 23, 2017	Petition filed with Commerce and the Commission; institution of Commission investigation (82 FR 15541, March 29, 2017)
April 12	Commerce's notice of initiation of antidumping investigations (82 FR 18428, April 19, 2017) and countervailing duty investigations (82 FR 18423, April 19, 2017)
April 13	Commission's conference
May 5	Commission's vote
May 8	Commission's determination
May 15	Commission's views

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

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

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

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

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

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

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

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

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

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

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

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

Organization of report

Part I of this report presents information on the subject merchandise, alleged subsidy/dumping margins, and domestic like product. *Part II* of this report presents information on conditions of competition and other relevant economic factors. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. *Parts IV* and *V* present the volume of subject imports and pricing of domestic and imported products, respectively. *Part VI* presents information on the financial experience of U.S. producers. *Part VII* presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

MARKET SUMMARY

Biodiesel is used as a partial or full substitute for petroleum-based diesel ("diesel"). The leading U.S. producers of biodiesel include Archer Daniels Midland ("ADM"), Ag Processing Inc., Cargill Inc., RBF Port Neches LLC ("RB Fuels"), and Renewable Energy Group, Inc. ("REG"), while leading producers of biodiesel outside the United States include LDC Argentina SA and T6 Industrial SA of Argentina and PT Wilmar Bioenergi Indonesia and PT Musim Mas of Indonesia. The leading U.S. importers of biodiesel from Argentina are ***, while the leading importer of biodiesel from Indonesia is ***. Leading importers of biodiesel from nonsubject countries (primarily Canada) are ***. U.S. purchasers of biodiesel are firms that generally blend for end-use or trade; leading purchasers include ***.

Apparent U.S. consumption of biodiesel totaled approximately 2.2 billion gallons ($5.8 billion) in 2016. Currently, at least 25 firms are known to produce biodiesel in the United States. U.S. producers' U.S. shipments of biodiesel totaled approximately 1.5 billion gallons ($3.7 billion) in 2016, and accounted for 68.0 percent of apparent U.S. consumption by quantity and 63.4 percent by value. U.S. imports from subject sources totaled 551.1 million gallons ($1.6 billion) in 2016 and accounted for 25.1 percent of apparent U.S. consumption by quantity and 28.0 percent by value. U.S. imports from nonsubject sources totaled 150.4 million gallons ($499 million) in 2016 and accounted for 6.9 percent of apparent U.S. consumption by quantity and 8.6 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 25 firms that accounted for 88.7 percent of U.S. production of biodiesel during 2016.[6] U.S. imports are based on official Commerce statistics and questionnaire responses received from 13 companies, representing a large majority of U.S. imports from Argentina and from Indonesia in 2016 under HTS statistical reporting numbers: 3826.00.1000 and 3826.00.3000.

Useable responses to the Commission's foreign producers' or exporters' questionnaire were received from 8 firms in Argentina, whose exports to the United States accounted for approximately *** percent of U.S. imports of biodiesel from Argentina during 2016. According to questionnaire responses, the estimated combined production of biodiesel in Argentina of the 8 responding producers was approximately 59.7 percent of overall production of biodiesel in Argentina in 2016. Useable responses to the Commission's foreign producers' or exporters' questionnaire were received from 4 firms in Indonesia, whose exports to the United States accounted for all U.S. imports of biodiesel from Indonesia during 2016. According to estimates provided by 2 of the producers in Indonesia, their combined production of biodiesel in Indonesia accounted for approximately *** percent of overall production of biodiesel in Indonesia in 2016.[7]

PREVIOUS AND RELATED INVESTIGATIONS

Biodiesel has not been the subject of any prior countervailing or antidumping duty investigations in the United States.

NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged subsidies

On April 19, 2017, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigations on biodiesel from Argentina and Indonesia.[8]

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[6] The coverage estimate is based on total 2016 production of biodiesel in the United States of 1,566 million gallons reported by EIA. U.S. Energy Information Administration, Monthly Biodiesel Production Report, December 2016 found at https://www.eia.gov/biofuels/biodiesel/production/archive/2016/2016_12/biodiesel.php.

[7] Wilmar and Musim Mas account for 100 percent of the EPA grandfathered volume that is qualified to produce biodiesel eligible to generate D6 RINs upon importation into the U.S market under the RFS program.

[8] *Biodiesel from Argentina and Indonesia: Initiation of Countervailing Duty Investigations*, 82 FR 18423, April 19, 2017.

Argentina

Commerce identified the following government programs in Argentina:

- GOA Provision of Soybeans for Less Than Adequate Remuneration (LTAR) through Soybean Export Restraints;
- GOA Mandated Purchase of Biodiesel for More than Adequate Remuneration (MTAR) (Biodiesel Supply Agreement);
- Preferential Lending and Export Financing Provided by Banco de la Naciòn Argentina (BNA);
- Accelerated Depreciation under Ley 26,093 for Biodiesel Producers;
- Exemption and Deferral of the Minimum Presumed Income Tax (MPIT) under Ley 26,093 for Biodiesel Producers;
- Provincial Tax Exemptions Provided by the Province of Cordoba;
- Provincial Tax Exemptions Provided by the Province of Buenos Aires;
- Provincial Tax Exemptions Provided by the Province of Santa Fe;
- Article 183.29 Santa Fe Stamp Tax Exemption;
- Santa Fe Turnover Tax Exemption for Export Sales.

Indonesia

Commerce identified the following government programs in Indonesia:

- Biodiesel Subsidy Fund;
- GOI Provision of Palm Oil Feedstock for LTAR by Export Restraint;
- Indonesian Eximbank Preferential Financing;
- Export Guarantees Provided by PT Asuransi Asei Indonesia and Indonesia Eximbank;
- Industrial Estate Subsidies;
- Pioneer Industry Tax Benefits;
- Income Tax Benefits for Listed Investments.

Alleged sales at LTFV

On April 19, 2017, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigations on biodiesel from Argentina and Indonesia.[9] Commerce has initiated antidumping duty investigations based on estimated dumping margins of 26.54 percent for biodiesel from Argentina and 28.11 percent for biodiesel from Indonesia.

[9] *Biodiesel from Argentina and Indonesia: Initiation of Less-Than-Fair- Value Investigations*, 82 FR 18428, April 19, 2107.

THE SUBJECT MERCHANDISE

Commerce's scope

Commerce has defined the scope of this investigation as follows:

> *Biodiesel, which is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, including biologically-based waste oils or greases, and other biologically based oil or fat sources. The investigations cover biodiesel in pure form (B100) as well as fuel mixtures containing at least 99 percent biodiesel by volume (B99). For fuel mixtures containing less than 99 percent biodiesel by volume, only the biodiesel component of the mixture is covered by the scope of the investigations.*
>
> *Biodiesel is generally produced to American Society for Testing and Materials International (ASTM) D6751 specifications, but it can also be made to other specifications. Biodiesel commonly has one of the following Chemical Abstracts Service (CAS) numbers, generally depending upon the feedstock used: 67784–80–9 (soybean oil methyl esters); 91051–34–2 (palm oil methyl esters); 91051–32–0 (palm kernel oil methyl esters); 73891–99–3 (rapeseed oil methyl esters); 61788–61–2 (tallow methyl esters); 68990–52–3 (vegetable oil methyl esters); 129828–16–6 (canola oil methyl esters); 67762–26–9 (unsaturated alkylcarboxylic acid methyl ester); or 68937–84–8 (fatty acids, C12–C18, methyl ester).*[10]

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the B100 biodiesel subject to these investigations is currently provided for in subheading 3826.00.10 of the Harmonized Tariff Schedule of the United States (HTSUS), while the B99 biodiesel is currently provided for in HTSUS subheading 3826.00.30. Rates of duty for these provisions are 4.6 percent and 6.5 percent ad valorem, respectively, and apply to products of both respondent countries. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. customs and border protection.

[10] *Biodiesel from Argentina and Indonesia: Initiation of Less-Than-Fair- Value Investigations*, 82 FR 18428, April 19, 2107.

THE PRODUCT

Manufacturing processes

Biodiesel[11] is a fuel made from many types of vegetable oils, animal fats, and used cooking oils. It is produced by reacting the triglycerides found in these oils and fats with methanol and an alkaline catalyst in a process called transesterification.[12] The resulting products are biodiesel (in the form of fatty acid methyl esters ("FAMEs")) and glycerol (more commonly known in the United States as glycerin) (figure I-1).[13]

[11] Biodiesel is defined by the U.S. Environmental Protection Agency and ASTM International as a fuel comprised of mono-alkyl esters of long-chain fatty acids derived from vegetable oils or animal fats. U.S. Energy Information Agency, "EIA-22M: Monthly Biodiesel Production Survey Instructions," https://www.eia.gov/survey/form/eia_22m/instructions.pdf; petition, exhibit GEN-12.

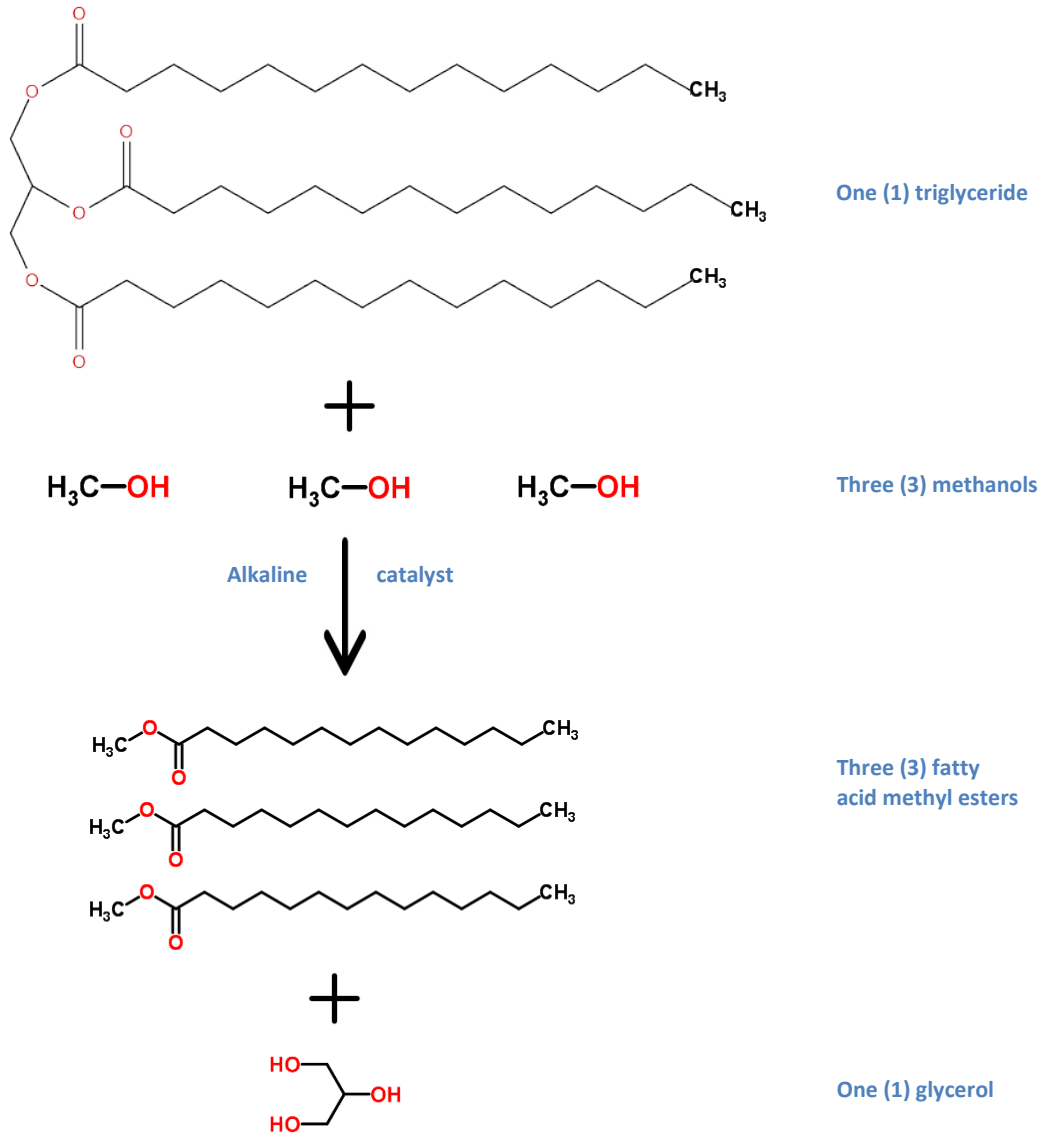
[12] Transesterification using acid catalysts instead of alkaline (base) catalysts, although beneficial in terms of the lower-quality inputs that can be tolerated, is a slower process that requires specialty equipment to prevent corrosion. ***.

[13] Glycerol, with a chemical formulation of $C_3H_8O_3$ and a CAS registry number of 56-81-5, is the primary by-product/co-product (*** percent by weight) of the biodiesel production process and is mixed with a number of nonglycerol contaminants as of the moment when the chemical reaction making biodiesel ends. ***. This name is used throughout the HTS and commercially worldwide except in the United States.

The term "glycerin" is used without distinction in the U.S. industry to refer to the many grades of glycerol mixtures available, from crude glycerin (80 percent and less glycerol) to technical-grade glycerin (95–96 percent) to USP-grade glycerin (99.5 percent and 99.7 percent are most common). USP-grade glycerin has the most flexibility in terms of sales and use because it meets any lower-grade requirements. ***.

Biodiesel producers are the largest source of glycerin supply in the world and sell crude glycerin to processors or purify it themselves for sale. Glycerin is used in personal and oral care products, food and beverages, tobacco, pharmaceuticals, and chemical production. Relatedly, when biodiesel production is high, prices for crude and refined glycerin can drop. ***.

Figure I-1
Biodiesel: Transesterification process

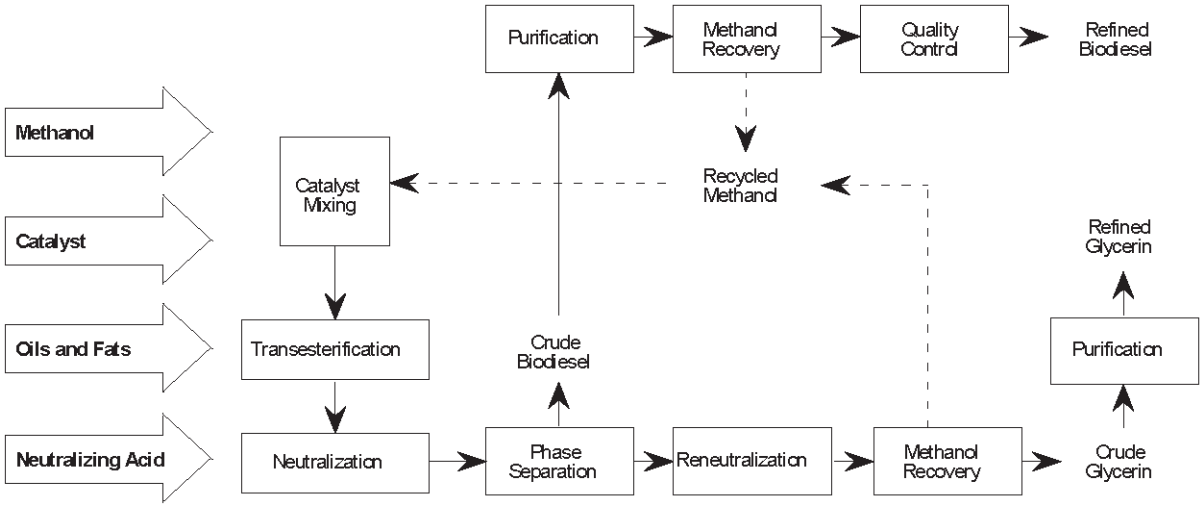


Note: This process example is specific for the triglyceride input trimyristin (carbon chain length of 14), producing the FAME methyl myristate (carbon chain length of 14). Use of other triglyceride inputs will produce other FAMEs corresponding to the length of the input carbon chain.

Source: ChemSpider, "Glycerol," March 28, 2017, http://www.chemspider.com/Chemical-Structure.733.html; ChemSpider, "Methanol," March 28, 2017, http://www.chemspider.com/Chemical-Structure.864.html; ChemSpider, "Methyl myristate," March 28, 2017, http://www.chemspider.com/Chemical-Structure.29024.html; National Institute of Standards and Technology, "1,2,3-propanetriyl tri(tetradecanoate)," 2012, http://wtt-pro.nist.gov/wtt-pro/index.html?cmp=1.2.3-propanetriyl_tri~tetradecanoate~.

A neutralization step takes place, and once the less-dense FAMEs and more-dense glycerin phases are formed, the glycerin is removed, and additional catalyst and methanol are added to the FAME phase to continue the transesterification process until no more biodiesel can be produced from the inputs.[14] The biodiesel is then purified (figure I-2).

Figure I-2
Biodiesel: Production process



Source: ***.

Information on the record in these investigations indicates that Argentine and Indonesian biodiesel producers use the transesterification process for their biodiesel production without notable chemical differences from U.S. biodiesel producers' production process.[15]

Oils and fats inputs

Availability and affordability are the two primary factors in choosing the oils and fats feedstocks for biodiesel production, a choice that represents an estimated *** percent of the production cost for biodiesel.[16] Locally grown oil seed crops provide the main source of feedstock. Soybeans are the dominant crop in the United States[17] and Argentina[18] because

[14] ***.

[15] Luis Panichelli, Arnaud Dauriat, and Edgard Gnansounou, "Life Cycle Assessment of Soybean-Based Biodiesel in Argentina for Export," *International Journal of Life Cycle Assessment* 14, no. 2 (2008): 144–159; Soni Sisbudi Harsono, "Biodiesel Production From Palm Oil Technology," *Research Journal of Agricultural Science* 43, no. 4 (2011): 80–85.

[16] ***. Petitioner stated that feedstock cost represented up to 90 percent. Conference transcript, p. 226 (Stone).

[17] In 2016, almost 70 percent of U.S. biodiesel was produced with soybean oil. U.S. Energy Information Administration, "Table 3. U.S. Inputs to Biodiesel Production," *Monthly Biodiesel Production Report*, https://www.eia.gov/biofuels/biodiesel/production/table3.pdf (accessed April 23, 2017).

(*continued*...)

growing conditions are favorable and soybeans can be used as a nitrogen-replacing rotational crop. Palm oil production dominates in Asia, particularly in Malaysia and Indonesia,[19] and is favorable due to the high oil yield per acre.[20] The use of animal fats in biodiesel production has increased in the United States, as has the use of used cooking oil, which reportedly only requires a simple cleaning process before transesterification begins.[21] Multifeedstock production facilities are equipped to process more than one type of oil or fat into biodiesel without significant changes in operating procedures.[22]

Use of a particular oil or fat input produces biodiesel with characteristics that vary slightly according to which input is used. For example, users of biodiesel made from palm oil can experience problems at lower temperatures, depending on the proportion of this biodiesel used in fuel, than with biodiesel made from soybean oil because of the higher temperature at which palm oil biodiesel becomes "cloudy" and less free-flowing.[23] By comparison, soybean oil biodiesel oxidizes more quickly than palm oil biodiesel; when that happens, the biodiesel would not meet the ASTM International standard anymore.[24] Regardless of the type of input, all biodiesel that meets the ASTM International standard (discussed below) can be used in all applications allowing for biodiesel use.

(…*continued*)
Respondents stated that the percentage of U.S. biodiesel produced with soybean oil was 46 percent. Conference transcript, p. 34 (Doyle).

[18] "Practically all biodiesel produced in Argentina is made from soybean oil." Ken Joseph, "Argentina: Biofuels Annual, 2016," *GAIN Report*, July 7, 2016, https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Buenos%20Aires_Argentina_7-21-2016.pdf.

[19] Palm oil is the "most commonly available" feedstock for biodiesel in Indonesia. No alternative is available in usable volumes and competitive prices. Thom Wright and Arif Rahmanulloh, "Indonesia: Biofuels Annual 2016," *GAIN Report*, no. ID 1619, July 28, 2016, https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Jakarta_Indonesia_7-28-2016.pdf.

[20] Yields of biodiesel per acre are typically lower for soybeans than for rapeseed (used in Europe) and palm oil. Palm oil is used mostly in food production, but use for biodiesel production has increased. ***.

[21] ***.

[22] ***; conference transcript, p. 186 (Soanes).

[23] Jesse Jin Yoon, "What's the Difference Between Biodiesel and Renewable (Green) Diesel," Advanced Biofuels USA, n.d., http://advancedbiofuelsusa.info/wp-content/uploads/2011/03/11-0307-Biodiesel-vs-Renewable_Final-_3_-JJY-formatting-FINAL.pdf. The cloud point is the temperature at which small solid crystals are first seen as the fuel temperature drops. National Biodiesel Board, "Cold Flow Backgrounder," n.d., http://biodiesel.org/docs/default-source/ffs-performace_usage/cold-flow-backgrounder.pdf.

[24] ***; conference transcript, pp. 87–88 (Whitney). Oxidation in biodiesel can result in the formation of various acids or polymers, which can cause fuel system deposits and lead to filter clogging and fuel system malfunctions. Petition, exhibit GEN-12.

CAS registry numbers

There are at least 53 CAS registry numbers assigned to varieties of biodiesel distinguished by input, the length of the carbon chains, and other chemical characteristics.[25] The tabulation below is ordered by input and by increasing carbon chain length.

Name	CAS number	Name	CAS number
Fatty acids, animal, unsaturated, methyl esters	85480-42-8	Fatty acids, C5-20, methyl esters	94733-11-6
Fatty acids, butter, methyl esters	85536-26-1	Fatty acids, C6-10, methyl esters	68937-83-7
Fatty acids, canola oil, methyl esters	129828-16-6	Fatty acids, C6-12, methyl esters	67762-39-4
Fatty acids, castor oil, methyl esters	68390-63-6	Fatty acids, C8-10, methyl esters	85566-26-3
Fatty acids, castor oil, hydrogenated, methyl esters	68938-13-6	Fatty acids, C8-18 and C18-unsaturated, methyl esters	67762-37-2
Fatty acids, coco, hydrogenated, methyl esters	85631-62-5	Fatty acids, C8-18, methyl esters	91031-65-1
Fatty acids, coco, methyl esters	61788-59-8	Fatty acids, C8-C18, methyl ester	68937-84-8
Fatty acids, essential, methyl esters	91051-06-8	Fatty acids, C10-16, methyl esters	67762-40-7
Fatty acids, fish oil, methyl esters	68605-02-7	Fatty acids, C11-17, methyl esters	85586-20-5
Fatty acids, Iris germanica, methyl esters	95009-32-8	Fatty acids, C12-16, methyl esters	85566-27-4
Fatty acids, Iris pallida, methyl esters	95009-33-9	Fatty acids, C12-20, methyl esters	91031-66-2
Fatty acids, lanolin, methyl esters	85005-41-0	Fatty acids, C14-18 and C16-18-unsaturated, methyl esters	67762-26-9
Fatty acids, linseed oil, methyl esters	91051-16-0	Fatty acids, C14-18 and C16-22-unsaturated, methyl esters	85049-38-3
Fatty acids, mustard oil, methyl esters	84238-16-4	Fatty acids, C14-18 and C18-unsaturated, branched and linear, methyl esters	85186-80-7
Fatty acids, olive oil, methyl esters	93572-01-1	Fatty acids, C14-18, methyl esters	91031-67-3
Fatty acids, palm oil, methyl esters	91051-34-2	Fatty acids, C14-18-branched, methyl esters	91002-21-0
Fatty acids, peanut oil, methyl esters	93572-08-8	Fatty acids, C16 and C18-unsaturated, methyl esters	68647-50-7
Fatty acids, rape oil, hydrogenated, methyl esters	91697-62-0	Fatty acids, C16-18 and C16-18-unsaturated, methyl esters	102047-28-9
Fatty acids, rape oil, methyl esters	85586-25-0	Fatty acids, C16-18 and C18-	67762-38-3

[25] See, inter alia, "REACH & Biodiesel," UK REACH Competent Authority Information Leaflet no. 15, July 2016, http://www.hse.gov.uk/reach/resources/biodiesel.pdf. ***.

Name	CAS number	Name	CAS number
		unsaturated, methyl esters	
Fatty acids, safflower oil, methyl esters	68605-14-1	Fatty acids, C16-18, methyl esters	85586-21-6
Fatty acids, soya, methyl esters	68919-53-9	Fatty acids, C16-20 and C16-18-unsaturated, methyl esters	68937-80-4
Fatty acids, sperm oil, methyl esters	68440-46-0	Fatty acids, C16-24 and C16-24-unsaturated, methyl esters	93571-83-6
Fatty acids, sunflower oil, methyl esters	68919-54-0	Fatty acids, C18 and C18-unsaturated, methyl esters	68937-81-5
Fatty acids, tall oil, methyl esters	74499-22-2	Fatty acids, C18-24 and C16-24-unsaturated, methyl esters	85408-67-9
Fatty acids, palm kernel oil, methyl esters	91051-32-0		
Fatty acids, tallow, methyl esters	61788-61-2		
Fatty acids, vegetable oil, methyl esters	68990-52-3		
Rapeseed oil methyl esters	73891-99-3		
Soybean oil methyl esters	67784-80-9		

Quality standards

Any biodiesel that meets the ASTM International standard for biodiesel (D6751, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels) can be sold for biodiesel use purposes.[26] There are four grades of biodiesel within this ASTM International standard, but petitioners stated that the differences between the grades, which are differentiated by sulfur and unreacted glyceride levels, are "meaningless" or "generally minor."[27] Similarly, ASTM International has developed standards for diesel blends that contain between 0 and 5 percent biodiesel[28] and blends that contain between 6 and 20 percent

[26] Petition, exhibit GEN-12.

[27] Petition, pp. 95–96. The four grades are Grade No. 1-B S15, Grade No. 1-B S500, Grade No. 2-B S15, and Grade No. 2-B S500, where the S value represents the level of sulfur parts per million, the 2-B grades are for general purpose biodiesel, and the 1-B grades are for special purpose biodiesel with sensitivity considerations for partially reacted glycerides. Petition, exhibit GEN-12.

[28] Petition, exhibit GEN-13 (D975, Standard Specification for Diesel Fuel Oils, paras. 7.3.1.2 and 7.3.1.4). Under this standard, diesel blends that contain up to 5 percent biodiesel are considered no different from diesel that contains no biodiesel. Erin Voegele, "ASTM Publishes Biodiesel Standards," Biodiesel Magazine, November 13, 2008, http://www.biodieselmagazine.com/articles/2947/astm-publishes-biodiesel-standards. Labeling of diesel blends to indicate the presence of biodiesel is not

(*continued*...)

biodiesel.[29] In addition, the National Biodiesel Board, a member of the ad hoc coalition that is the petitioner in these investigations, created a committee in 2000 "{t}o help assure that biodiesel fuel is produced to and maintained" at the ASTM D6751 standard.[30]

Description and applications

Biodiesel is used as a partial or full substitute for diesel. It has many molecular formulas, and therefore slightly varying characteristics, and CAS registry numbers because of the assorted vegetable oils and animal fats that can be used as an input.[31]

Transportation

Biodiesel is primarily used as a substitute for diesel in the transportation sector.[32] This use involves biodiesel in its unadulterated form (B100) or blended with diesel, with the most frequent proportions of such blends being 2 percent (B2), 5 percent (B5), 10 percent (B10), and 20 percent (B20) biodiesel. Blending can take place at any point in the distribution system as the act of blending is most frequently neither mechanically complex nor expensive.[33] Biodiesel can be blended with diesel in any proportion without separation, meaning that it can be used in existing diesel applications without major modifications to the machinery.[34] Any vehicle that uses diesel can use biodiesel at a blend level of B5 or lower.[35]

(…*continued*)
required under this standard. Alternative Fuels Data Center, U.S. Department of Energy, "Biodiesel Blends," n.d., http://www.afdc.energy.gov/fuels/biodiesel_blends.html (accessed April 21, 2017).

[29] Petition, exhibit GEN-14 (D7467, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), para. 1.1).

[30] BQ-9000, the National Biodiesel Accreditation Program, is a voluntary program for the accreditation of producers and marketers of biodiesel that includes storage, sampling, testing, blending, shipping, distribution, and fuel management practices. It is available to any biodiesel manufacturer, marketer, or distributor of biodiesel and biodiesel blends in the United States and Canada. National Biodiesel Accreditation Commission, http://bq-9000.org/ (accessed April 21, 2017); Erin Voegele, "BQ-9000: Moving Forward," *Biodiesel Magazine*, October 25, 2010, http://www.biodieselmagazine.com/articles/4502/bq-9000-moving-forward.

[31] The variety of inputs leads to several conversion factors being used when converting kilograms of biodiesel (the unit of measurement in international trade) into gallons (the unit of measurement in the United States). These conversion factors, as described in the questionnaire responses, can also vary by manufacturing facility because of differences in the processes used. Conference transcript, pp. 135–137 (Cummings, Whitney).

[32] In the U.S. transportation sector in 2015, gasoline and ethanol used for blending with gasoline represented 60 percent of use. Diesel and biodiesel represented about 22 percent. U.S. Energy Information Agency, "Use of Energy in the United States Explained: Energy Use for Transportation," October 4, 2016, https://www.eia.gov/Energyexplained/?page=us_energy_transportation.

[33] Conference transcript, pp. 79 (Doyle), 212 (Getlan).

[34] The use of diesel blended with biodiesel does not require any modification to engines or heating burners, taking into consideration the proportion of biodiesel used because of temperature and other

(*continued*...)

There are advantages to using biodiesel in some capacity compared to diesel only. Biodiesel has a very low sulfur content and contains oxygen molecules (diesel has no oxygen), lowering its pollution potential.[36] It has a high lubrication capacity, which can offset the lubrication problems encountered with low-sulfur diesel use, which is increasingly being mandated.[37]

There are also disadvantages to replacing diesel with biodiesel. Biodiesel has a lower energy content compared to diesel, which lowers fuel efficiency and power, and has lower cold-flow properties, which can cause problems when used in cold temperatures with respect to blends with higher concentrations of biodiesel.[38]

Heating

Biodiesel is also used as a heating fuel (fuel oil), primarily in the northeastern United States.[39] Biodiesel use in conventional heating oil reduces carbon and sulfur environmental concerns and maintenance costs because of biodiesel's lower sulfur level.[40] In addition, ASTM International approved a new standard in 2014 that allows the use of heating oil with a biodiesel content of 6–20 percent, an increase from the 5 percent level established in 2008.[41]

Category of biofuels

Biodiesel is one of several fuels that fall under the broad category of biofuels,[42] and only certain other fuels made from renewable resources can be related to biodiesel on a production or use basis.

(…*continued*)
factors. Because of biodiesel's greater solvent properties compared to diesel, however, the use of unadulterated biodiesel requires modification of fuel hoses, pipes, and seals. ***.

[35] U.S. Energy Information Agency, "Use of Biodiesel," August 29, 2016, https://www.eia.gov/Energyexplained/index.cfm?page=biofuel_biodiesel_use.

[36] ***. Nitrogen oxide emissions may be higher than with diesel use. U.S. Energy Information Administration, "Biodiesel and the Environment," November 8, 2016, https://www.eia.gov/Energyexplained/index.cfm?page=biofuel_biodiesel_environment.

[37] U.S. Energy Information Agency, "Use of Biodiesel," August 29, 2016, https://www.eia.gov/Energyexplained/index.cfm?page=biofuel_biodiesel_use.

[38] U.S. Environmental Protection Agency, "Technical Highlights: Biodiesel," EPA-420-F-10-009, February 2010, http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1006V0I.pdf.

[39] In 2015, residential consumers of heating oil in the northeastern United States represented 84 percent of heating oil sales. U.S. Energy Information Agency, "Heating Oil Explained: Use of Heating Oil," March 30, 2017, https://www.eia.gov/Energyexplained/index.cfm?page=heating_oil_use. By 2018, Connecticut, New Jersey, New York, Maine, Massachusetts, and Vermont will have switched to an ultra-low-sulfur heating oil standard for residential and commercial sectors. ***.

Biodiesel is also used for stationary electricity generation in diesel generators.

[40] ***.

[41] ASTM International, "Standard Specification for Fuel Oils," D396-16e1, October 1, 2016.

[42] A biofuel is a fuel composed of or produced from biological raw materials, as opposed to a fossil fuel, which is a fuel formed in the earth from plant or animal remains.

Renewable diesel

Renewable diesel is produced from the same oils and fats as biodiesel (there are non–process-related preferences for animal fats in the U.S. market for renewable diesel)[43] but through a different chemical process that results in renewable diesel being almost chemically identical to diesel.[44] As a result, renewable diesel can be blended at any proportion with diesel without a performance decline and is compatible with diesel machinery.[45] Reportedly, renewable diesel has a higher production cost than biodiesel.[46] U.S. production of renewable diesel has increased significantly since 2010 and is a major component in the California biofuel market for diesel.[47] Respondents stated that renewable diesel "is an expanding and important part" of the U.S. market.[48] The U.S. Department of Agriculture has highlighted similar regulatory treatments of biodiesel and renewable diesel.[49] They both qualify for the two major renewable fuel programs in the United States: the national Renewable Fuel Standard (RFS) and California's Low Carbon Fuel Standard (LCFS) (discussed below).[50]

Other biofuels

A number of other biofuels cannot be blended with diesel. Bioethanol, the largest biofuel by use in the U.S. market, is produced by a biological process (fermentation) from renewable resources such as corn and agricultural and forestry residues. It is used as an additive to gasoline.[51] Other examples of biofuels in various stages of commercial development include "bio-oil,"[52] crude oil from algae,[53] and woody biomass jet fuel.[54]

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[43] Conference transcript, pp. 137–138 (McCullough, Whitney).

[44] ***. Imports of renewable diesel are classifiable in HTS chapter 27 with petroleum-based diesel.

[45] Jesse Jin Yoon, "What's the Difference Between Biodiesel and Renewable (Green) Diesel," Advanced Biofuels USA, n.d., http://advancedbiofuelsusa.info/wp-content/uploads/2011/03/11-0307-Biodiesel-vs-Renewable_Final-_3_-JJY-formatting-FINAL.pdf.

[46] ***.

[47] Conference transcript, pp. 138–139 (Whitney).

[48] Conference transcript, p. 17 (McCullough).

[49] Ernest Carter, "U.S. Biodiesel/Renewable Diesel Market," November 2016, https://www.usda.gov/oce/energy/files/US_Biodiesel_RD_MarketJul2016.pdf (presentation).

[50] Sean Hill, "U.S. Biodiesel and Renewable Diesel Imports Increase 61% in 2015," April 11, 2016, https://www.eia.gov/todayinenergy/detail.php?id=25752.

[51] Ku Syahidah Ku Ismail, "Chapter 2: Biological Process for Ethanol Production," n.d., http://portal.unimap.edu.my/portal/page/portal30/Lecturer%20Notes/KEJURUTERAAN_BIOPROSES/Semester%202%20Sidang%20Akademik%20201520161/Bioprocess%20Engineering%20Program/Forth%20Year/ERT%20429%20Energy%20from%20Bioresources/ERT%20429%20Ch%202.pptx.

[52] Rosalie Marion Bliss, "Bringing Up Better Biofuel," May 5, 2016, https://www.usda.gov/media/blog/2016/05/5/bringing-better-biofuel.

[53] U.S. Department of Agriculture, "Fact Sheet: USDA Invests in Clean Energy Economy, Supporting U.S. Producers and Seeking to Double Number of Higher Blend Renewable Fuel Pumps Available to Consumers," release no. 0157.15, May 29, 2015, https://www.usda.gov/media/press-releases/2015/05/29/fact-sheet-usda-invests-clean-energy-economy-supporting-us.

Government regulation and tax policy

According to the U.S. Department of Energy, the strongest drivers of the increase in U.S. demand for biodiesel (and renewable diesel) since 2012 have been (1) increasing targets under the RFS and the market-tradeable credits generated by biodiesel production and importation and (2) the blender's tax credit.[55] These credits and tax incentives are reportedly important contributors to the U.S. biodiesel industry's profitability.[56]

Renewable Fuels Standard

The RFS program, created by the U.S. Environmental Protection Agency (EPA) under the authority of the Energy Policy Act of 2005, established the first renewable fuel mandate in the United States. In 2007, Congress expanded and modified the RFS program to include diesel, provide for annual increases in the renewable fuel blend requirement from 9 billion gallons in 2008 to 36 billion gallons by 2022, and label biodiesel from most available domestic feedstocks as an advanced biofuel.[57] This modified RFS program became the basis for the current RFS2 program, which became effective mid-2010 and mandated much larger annual volumes and established separate requirements for different classes of biofuels, such as cellulosic.[58] Biodiesel producers must undergo a process to become registered under the RFS2 program.[59]

The EPA regulates compliance with the RFS using renewable identification numbers (RINs), a tradable credit system under which "obligated parties"[60] submit to EPA RINs that equal the number of gallons in their annual renewable volume obligation (RVO).[61] RIN validity and obligation compliance can span two years. RINs may be used by the party that generates them to satisfy its RVO or traded and sold so that other obligated parties may use them to satisfy their RVO. The EPA Moderated Transaction System (EMTS) is used to register RIN transactions.[62]

(…*continued*)

[54] Steve Csonka, "Sustainable Alternative Jet Fuel Development and Commercialization," February 2017, p. 14, https://www.usda.gov/oce/forum/2017_Speeches/Steve_Csonka.pdf.

[55] Sean Hill, "U.S. Biodiesel and Renewable Diesel Imports Increase 61% in 2015," April 11, 2016, https://www.eia.gov/todayinenergy/detail.php?id=25752.

[56] ***.

[57] ***.

[58] Kelsi Bracmort, "The Renewable Fuel Standard (RFS): In Brief," *CRS Report*, no. R43325, December 14, 2016.

[59] ***.

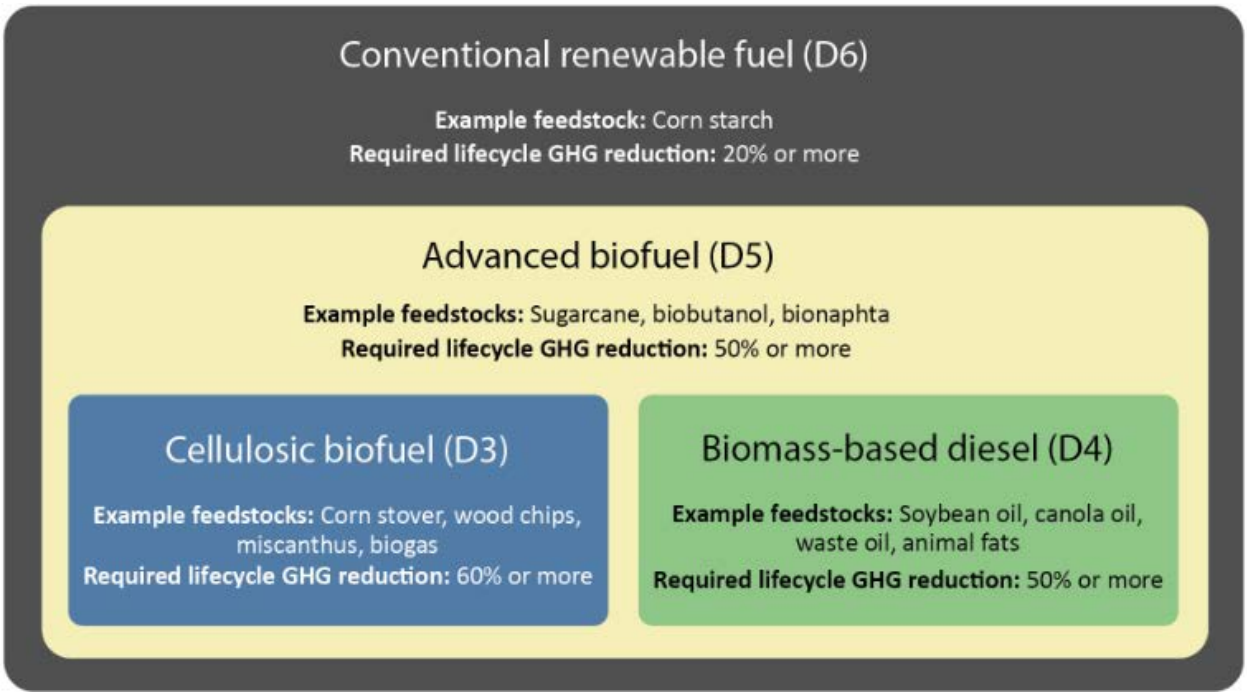
[60] An obligated party is any refiner that produces gasoline or diesel within the 48 contiguous states or Hawaii or any importer that imports gasoline or diesel into the 48 contiguous states or Hawaii. 40 CFR § 80.1406 (a)(1).

[61] The RVO is the obligated party's total gasoline and diesel sales multiplied by the annual renewable fuel percentage standards announced by EPA in a rulemaking scheduled each year. Kelsi Bracmort, "The Renewable Fuel Standard (RFS): In Brief," *CRS Report*, no. R43325, December 14, 2016.

[62] Kelsi Bracmort, "The Renewable Fuel Standard (RFS): In Brief," *CRS Report*, no. R43325, December 14, 2016.

Each gallon of biodiesel produced in or imported into the United States generates about 1.5 RINs. There are different classes of RINs depending on the feedstock, for example, D4 for soybean oil feedstock and D6 for palm oil feedstock, and each RIN class has a different market value.[63] Figure I-3 provides a representation of the RIN classes and the characteristics of certain RINs to satisfy the compliance obligation in place of other RINs.

Figure I-3
Biodiesel: RIN trading system



Source: U.S. Environmental Protection Agency, "Renewable Fuel Standard Program: Renewable Fuel Annual Standards," https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-annual-standards (accessed April 28, 2017).

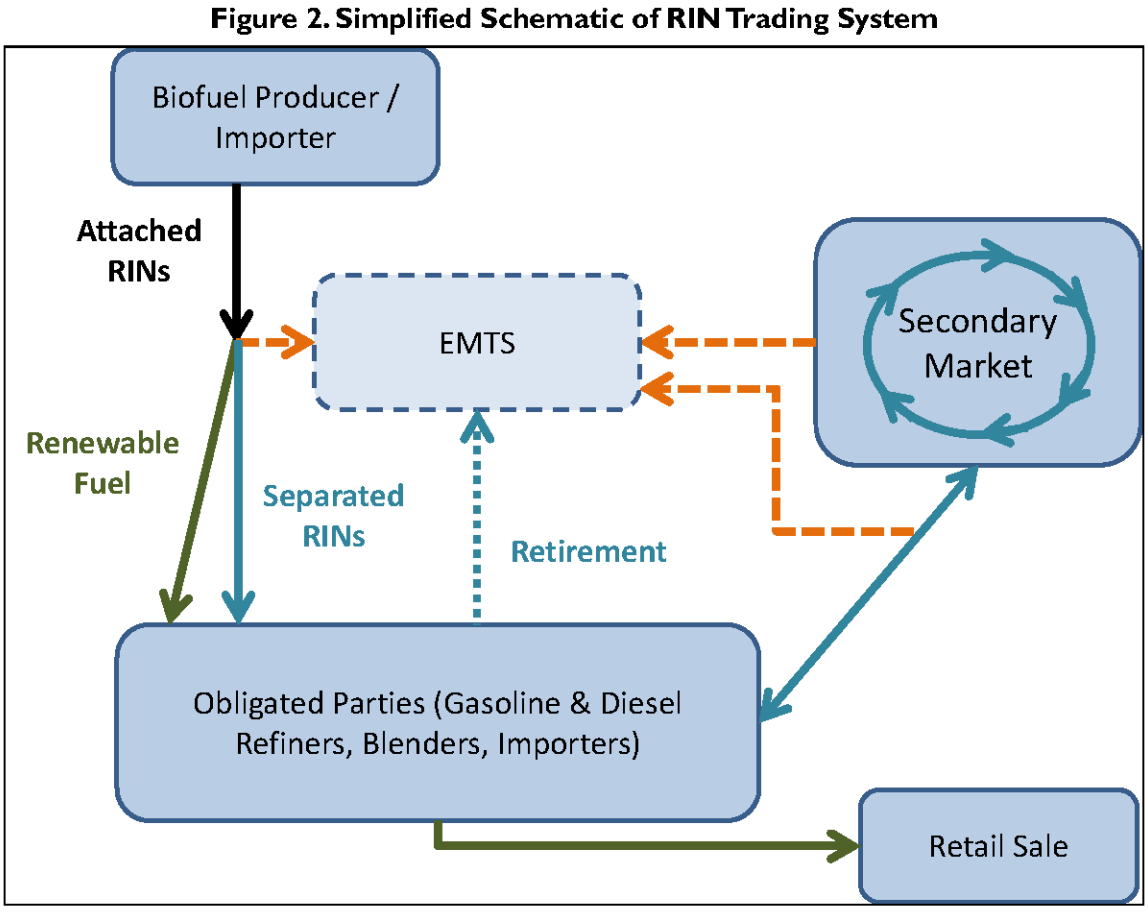
RINs are attached to each eligible gallon of biodiesel and transferred to obligated parties with the biodiesel when it is purchased or the RIN can be separated and sold in the open market.[64] Figure I-4 represents a simplified form of the RIN market.

[63] Conference transcript, pp. 48, 50 (Cummings); Andrew Szamosszegi, presentation at the USITC, April 13, 2017, p. 20 (staff conference presentation).

The American Renewable Fuel and Job Creation Act of 2017, introduced by Senators Chuck Grassley and Maria Cantwell with 14 other sponsors on April 26, 2017, would convert the blender's tax credit into a U.S. producer's credit. For the text of the bill, see https://www.grassley.senate.gov/sites/default/files/MCG17256_0.pdf.

[64] ***.

Figure I-4
Biodiesel: RIN trading system



Source: CRS, based on Rakesh Radhakrishnan, *Market Considerations—RECs and RINs Overlap*, Thompson Reuters, September 25, 2012, p. 8, http://www.renewableenergymarkets.com/docs/presentations/2012/Radhakrishnan.pdf.

Notes: Black lines indicate RINs attached to actual biofuel gallons. Solid blue lines indicate separated RINs that may be traded among all market participants. Dashed blue line indicates end-of-year submission of RINs by obligated parties to EPA to meet RFS mandates. Green lines indicate actual biofuel gallons separated from RINs. Orange lines indicate that all RIN transactions must be cleared through EMTS.

Source: Brent D. Yacobucci, "Analysis of Renewable Identification Numbers (RINs) in the Renewable Fuel Standard (RFS)," *CRS Report for Congress*, R42824, July 22, 2013, p. 5.

Blender's tax credit

Federal biodiesel tax incentives began in 2005 and have been renewed prospectively or retroactively a number of times, most recently expiring as of the end of 2016.[65] Their goal is to facilitate the price competitiveness of biodiesel with diesel. There are three parts to the credit, but mostly it is the blender's tax credit ($1.00 per gallon credit for each biodiesel gallon that is blended with diesel) that is claimed.[66]

State programs

According to the U.S. Department of Energy, there are reportedly more than 300 state laws, regulations, and "funding opportunities" related to biodiesel production and use.[67] Examples include mandates for minimum biodiesel blending, tax credits, and sales tax exemptions.[68] Because of the size of the California market, one of the programs having the most effect within the state and nationally is the LCFS. According to the California state government, "the LCFS is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives," with "a reduction of at least 10 percent in the carbon intensity of California's

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[65] The blender's tax credit was established in 2004, extended in 2005, amended in 2008, and extended again in 2010. Alternative Fuels Data Center, U.S. Department of Energy, "Key Federal Legislation," January 3, 2017, http://www.afdc.energy.gov/laws/key_legislation.

The 2010 extension applied retroactively to 2010 and prospectively to 2011. Brent D. Yacobucci, "Biofuels Incentives: A Summary of Federal Programs," *CRS Report for Congress*, R40110, January 11, 2012.

An early 2013 extension applied retroactively to 2012 and prospectively to 2013. TransportPolicy.net, "US: Fuels: Biofuel Tax Credits," September 30, 2013, http://transportpolicy.net/index.php?title=US:_Fuels:_Biofuel_tax_credits.

A late 2014 extension applied to 2014 only. Ron Kotrba, "Obama Signs Tax Act Reinstating Biodiesel Credit Through 2014," *Biodiesel Magazine*, December 22, 2014.

A 2015 extension applied retroactively to 2015 and prospectively to 2016. Erin Voegele, "Obama Signs Spending Bill, Tax Extenders Legislation," *Biodiesel Magazine*, December 23, 2015.

The petitioners and respondents have "little expectation" that this tax credit will be reinstated "soon." Conference transcript, pp. 50 (Cummings), 167 (Steckel).

The American Renewable Fuel and Job Creation Act of 2017, introduced by Senators Chuck Grassley and Maria Cantwell with 14 other sponsors on April 26, 2017, would convert the blender's tax credit into a U.S. producer's credit. For the text of the bill, see https://www.grassley.senate.gov/sites/default/files/MCG17256_0.pdf.

[66] The other two parts are a $1.00 per gallon credit for each gallon of B100 that is used as fuel and a $0.10 per gallon credit for plants with production capacity of less than 60 million gallons per year for biodiesel made from first-use vegetable oils and animal fats. ***. Renewable diesel also qualifies for the blender's tax credit.

[67] U.S. Department of Energy, "Alternative Fuels Data Center," n.d., http://www.afdc.energy.gov/laws/matrix?sort_by=tech (accessed April 24, 2017).

[68] ***.

transportation fuels by 2020."[69] The program takes into account a fuel's full life cycle, encompassing tailpipe and all associated emissions from production, distribution, and use of transport fuels within the state. Consequently, animal fats are a preferred input in biodiesel production for use in California.[70]

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations.[71]

[69] California Environmental Protection Agency Air Resources Board, "Low Carbon Fuel Standard," April 13, 2017, https://www.arb.ca.gov/fuels/lcfs/lcfs.htm.

[70] Animal fats, as well as waste oils, have lower carbon-intensity "scores" than palm oil or soybean oil, and that score "translates actually into a certain number of credits, which have a market value that we transact, sort of like RINs, except a little bit more opaque and a little bit more magical." Conference transcript, pp. 138–139 (Whitney).

[71] For the purposes of the preliminary phase investigations, Respondents do not dispute the proposed like product definition. Conference transcript, p 78 (Porter and Janzen)

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

U.S. MARKET CHARACTERISTICS

Biodiesel is a renewable fuel alternative to petroleum diesel that can be made from a wide variety of animal and vegetable oils, including used cooking oil, soybean oil, canola oil, and tallow. It is primarily used in blends with petroleum diesel as transportation fuel or heating oil.[1] Some plants in the United States are "collocated," or vertically integrated, with the feedstock supply, oil production, and then biodiesel production.[2] The market is served by domestic production and imports from Argentina and Indonesia, as well as by nonsubject sources. Biodiesel is produced to ASTM standard for biodiesel (ASTM D6751). The biodiesel market is policy-driven and is heavily influenced by U.S. government subsidies and government mandates on the use of biodiesel.[3]

Apparent U.S. consumption of biodiesel increased during January 2014-December 2016. Overall, apparent U.S. consumption in 2016 was 57.7 percent higher than in 2014. In 2016, domestic producers' share of U.S. apparent consumption was 68.0 percent, imports from subject sources were 25.1 percent, and imports from nonsubject sources were 6.9 percent. Imports from Argentina accounted for 20.1 percent of U.S. apparent consumption and Indonesia accounted for 5.0 percent in 2016.

Government mandates and incentives

As described in *Part I*, an overarching condition in the U.S. biodiesel market is the prevalence of government mandates and incentives, both at the federal and state levels. The federal Renewable Fuel Standard (RFS) program projects volumes available in the U.S. market in a given year, including the supply of imports. These mandates create a volume floor that obligated parties must meet through their renewable volume obligation (RVO). According to petitioners, the RFS mandate was intended to substantially increase domestic renewable fuel production, reduce dependence on petroleum, stimulate U.S. economic activity, and reduce harmful emissions.[4] The EPA created a system of Renewable Identification Numbers (RINs) that are attached to each gallon of biodiesel which obligated parties, biodiesel producers, and importers can trade to meet their obligations. There are different categories of RINs that depend on the feedstock used to produce the biodiesel, including D4 and D6 RINs. Because obligated parties require RINs to meet their RFS obligations, and because RINs are generated when biodiesel is produced or imported, the RINs market helps drive demand for biodiesel.[5]

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[1] Conference transcript, pp.161-162 (Steckel).
[2] Conference transcript, p. 222 (Stone).
[3] Conference transcript, pp. 15-16 (McCullough).
[4] Petitioner's postconference brief, p. 9.
[5] Petitioner's postconference brief, p. 12.

Congress and some states have also implemented tax incentives for the production and use of biodiesel, further increasing demand. However, these incentives are implemented for limited timeframes and require renewal, which creates uncertainty and lower demand when these programs have lapsed. The federal blender's tax credit lapsed twice during 2014-16. Price negotiations during lapsed years are still impacted by the possibility of retroactive application.[6]

CHANNELS OF DISTRIBUTION

As shown in table II-1, U.S. producers sold mainly to petrodiesel producers and distributors/independent blenders while importers sold mainly to distributors/independent blenders.

Table II-1
Biodiesel: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, January 2014-December 2016

* * * * * * *

GEOGRAPHIC DISTRIBUTION

U.S. producers reported selling biodiesel to all regions in the contiguous United States (table II-2). Importers reported primarily selling to the Northeast, Central Southwest, and Southeast. For U.S. producers, 24.6 percent of sales were within 100 miles of their production facility, 63.7 percent were between 101 and 1,000 miles, and 11.6 percent were over 1,000 miles. Importers sold 87.4 percent within 100 miles of their U.S. point of shipment, 12.2 percent between 101 and 1,000 miles, and 0.4 percent over 1,000 miles.

[6] Respondent Cargill's postconference brief, p. 5.

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

		Subject U.S. importers	
Region	U.S. producers	Argentina	Indonesia
Northeast	14	5	1
Midwest	14	1	0
Southeast	16	4	2
Central Southwest	14	5	3
Mountain	11	2	0
Pacific Coast	15	1	0
Other[1]	2	1	0
All regions (except Other)	5	0	0
Reporting firms	25	8	3

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

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

SUPPLY AND DEMAND CONSIDERATIONS

U.S. supply

Domestic production

Based on available information, U.S. producers of biodiesel have the ability to respond to changes in demand with small-to-moderate changes in the quantity of shipments of U.S.-produced biodiesel to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the availability of unused capacity. Factors mitigating responsiveness of supply include limited availability of inventories, limited ability to shift shipments from alternate markets, and limited ability to shift production to or from alternate products. RFS mandates and the blender's tax credit in 2016 influenced domestic production.[7]

Industry capacity

Domestic capacity utilization increased from 75.5 percent in 2014 to 78.8 percent in 2016, as capacity and production increased over the period. This relatively moderate level of capacity utilization suggests that U.S. producers may have some ability to increase production of biodiesel in response to an increase in prices.

[7] Indonesian respondents' postconference brief, p. 8.

Alternative markets

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

Inventory levels

U.S. producers' inventories, relative to total shipments, increased from 3.0 percent in 2014 to 4.5 percent in 2015 and declined to 2.8 percent in 2016. These inventory levels suggest that U.S. producers may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

No responding U.S. producers stated that they could switch production from biodiesel to other products. Also, U.S. producer *** stated that biodiesel refining equipment can only produce biodiesel.

Subject imports from Argentina[8]

Based on available information, producers of biodiesel from Argentina have the ability to respond to changes in demand with small-to-moderate changes in the quantity of shipments of biodiesel to the U.S. market. The main contributing factor to this degree of responsiveness of supply is the availability of unused capacity. Factors mitigating responsiveness of supply include limited availability of inventories, limited ability to shift shipments from alternate markets, and limited ability to shift production to or from alternate products. In order to produce qualifying biodiesel under the RFS mandate, Argentine producers must source their soybeans from EPA-certified land, further restricting their ability to respond to changes in demand.

Industry capacity

Argentine capacity utilization fluctuated from 2014-16, declining from 70.7 percent in 2014 to 39.7 percent in 2015 before rebounding to 68.9 percent in 2016, primarily due to changes in production over the period as capacity remained stable. This relatively moderate level of capacity utilization suggests that Argentine producers may have some ability to increase production of product in response to an increase in prices.

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

Alternative markets

Argentine shipments to markets other than the United States, as a percentage of total shipments, decreased substantially. Shipments to domestic markets fluctuated from *** percent in 2014 to *** percent in 2015 to *** percent in 2016. Shipments to export markets other than the United States declined from *** percent in 2014 to *** percent in 2016, as exports to the United States increased from *** percent to *** percent over the period. Argentine exports in 2016 indicate that producers may have limited ability to shift shipments from domestic or other markets to the U.S. market in response to price changes.

Inventory levels

Argentina's responding foreign firms' inventories fluctuated slightly. Relative to total shipments, inventory levels increased from 2.7 percent in 2014 to 5.6 percent in 2015 before declining to 2.3 percent in 2016. These inventory levels suggest that responding foreign firms may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

All responding Argentine producers stated that they could not switch production from biodiesel to other products because it is not possible to produce different products on the same equipment.

Subject imports from Indonesia[9]

Based on available information, producers of biodiesel from Indonesia have the ability to respond to changes in demand with moderate changes in the quantity of shipments of biodiesel to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories and the ability to shift shipments from alternate markets. The factor mitigating responsiveness of supply is limited ability to shift production to or from alternate products. In addition, there are only two Indonesian producers that were "grandfathered" into the RFS program and are qualified to produce biodiesel at a capped capacity.

Industry capacity

Indonesian capacity utilization declined irregularly from *** percent in 2014 to *** percent in 2016 as production declined from 2014 to 2015 followed by an increase in production in 2016. This relatively *** level of capacity utilization suggests that Indonesian

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

producers may have substantial ability to increase production of biodiesel in response to an increase in prices.

Alternative markets

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

Inventory levels

Responding Indonesian firms' inventories declined irregularly from 2014 to 2016. Relative to total shipments, inventory levels increased from *** percent in 2014 to *** percent in 2015 before falling to *** percent in 2016. These inventory levels suggest that responding foreign firms may have some ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

One responding Indonesian producer stated that it could switch production from biodiesel to fatty alcohol production. Factors affecting foreign producers' ability to shift production include required downtime, and increased production costs from different by-products and lower demand for the by-products.

Supply constraints

Three of 25 responding U.S. producers and 4 of 13 responding importers reported that they experienced supply constraints since January 1, 2014. U.S. producers reported that low prices impacted domestic production. Importer *** stated that it regularly declined new orders or customers because of volatile pricing. Importer *** stated that compliance costs are high; the capacity of distillation is limited from capped, grandfathered capacity; and weather patterns affect supply patterns which in turn affects biodiesel production. Importer *** stated that delays in delivery and spikes in "offtake" demand occur periodically. Importer *** stated that infrequent logistics timing caused shortages.

Nonsubject imports

Nonsubject imports accounted for 21.4 percent of total U.S. imports in 2016. Canada was the largest source of nonsubject imports during January 2014-December 2016, accounting for 14.5 percent of nonsubject imports in 2016.

U.S. demand

Based on available information, the overall demand for biodiesel is likely to experience moderate-to-large changes in response to changes in price. The main contributing factors are government mandates and tax incentives, the range of substitute products, and the varied cost share of biodiesel in its end-use products.

End uses and cost share

U.S. demand for biodiesel depends on the demand for U.S.-produced downstream products. End uses include on-road transportation fuel, off-road transportation fuel, heating oil, and industrial products.

Biodiesel accounts for a wide range of the share of the cost of the end-use products in which it is used. Twelve responding U.S. producers and three responding importers reported that biodiesel accounted for 20 percent or less of the cost of on-road transportation fuel while eleven U.S. producers and three responding importers reported that the cost share was 80 percent or above. Responding U.S. producers were split with respect to the cost share of biodiesel accounts for off-road transportation fuel: 6 of 11 reported 20 percent or less and 5 reported 94 percent or more. Most responding U.S. producers reported that biodiesel accounts for 10 percent or less of the cost of heating oil, while one U.S. producer and two responding importers reported that biodiesel can account for 100 percent of the cost of heating oil.

Business cycles

Twenty-four of 25 U.S. producers and all 13 responding importers indicated that the market was subject to business cycles or distinct conditions of competition. Specifically, 20 of 25 U.S. producers and 11 of 13 importers reported that the biodiesel market is subject to business cycles. In general, responding firms described the biodiesel market as seasonal, with less demand in the winter months and peak demand in late spring through summer (April-September) in certain regions. *** stated that these cycles reflect the trends in road miles traveled by both commercial and personal vehicles, which similarly vary with the seasons. It continued that blenders tend to minimize the percentage of biodiesel added to conventional diesel in cold weather because biodiesel tends to solidify at slightly higher temperatures than conventional diesel fuel, magnifying the seasonality of demand for biodiesel. U.S. producer *** stated that the market changes predominantly to serve heating oil needs in the winter and transportation fuel needs in the summer. Importer *** stated that during the summer in most of the southern half of the United States most petroleum diesel at the pumps contains at least 20 percent biodiesel with no concerns and, by contrast, when the temperatures start to go below freezing, blenders will get more cautious and will suspend blending under certain conditions. It continued that biodiesel made from palm oil is therefore restricted for use between April to September in the warmer parts of the country. Seven of 18 responding U.S. producers and 4 of 10 responding importers reported that there has been a change in the business cycle since January 1, 2014. These reported changes include seasonal factors that are exacerbated by growing demand overall and increased imports.

Twenty-four of 25 U.S. producers and 12 of 13 importers reported that the biodiesel market is subject to federal tax credits. Generally, responding firms stated that the federal tax credit (also known as the blender's tax credit or BTC) is a $1 per gallon credit when biodiesel is blended below B100 with 0.1 percent diesel to get B99.9. This affects demand in the market by encouraging investment and expansion of biodiesel production, and improves competitiveness with diesel. The credit has expired and been renewed periodically over the period of investigation. *** stated that as federal tax credits expire, risk shifts to biodiesel marketers due to uncertainty and sharing of any retro-active credits. U.S. producer *** stated that the absence of federal tax credits discourages blenders from consuming biodiesel. U.S. producer *** stated that the frequent lapse and retroactive renewal of the blender's tax credit has an impact on demand. *** stated that the blender's tax credit has significantly improved demand when it has been in effect relative to those periods in which it has lapsed. It continued that demand in 2016 (approximately 2.5 billion gallons when the credit was in place all year) was significantly better than demand in 2014 (approximately 1.7 billion gallons) or 2015 (about 1.8 billion gallons) when it had lapsed and was only applied retroactively. U.S. producer *** stated that when the blender's tax credit expires, extra production in the fourth quarter of the year exacerbates the slowdown of demand in the winter. Importer *** stated that U.S. producers would sell below their production cost and agree to split any future retroactive BTCs evenly with the customer in some years. It continued that the blender's tax credit has always been renewed until this year, when it expired on December 31, 2016, and the prospects of the blender's tax credit being reinstated are "not looking good." *** continued that companies are nonetheless selling product and agreeing to split the BTCs 50/50 with their customers if it is renewed. Lastly, it stated that its biodiesel is not currently competitive without a blender's tax credit. Eighteen of 22 responding U.S. producers and 10 of 13 responding importers reported that there has been a change in the blender's tax credit since January 1, 2014. The blender's tax credit lapsed in 2014 and 2015, but was applied retroactively when reinstated in 2016. The credit has currently lapsed again and responding firms are uncertain whether it will be reinstated and retroactively applied.

Fourteen of 25 U.S. producers and 10 of 13 importers reported that the biodiesel market is subject to state tax credits. Like the federal tax credits, state tax credits help increase demand for biodiesel. California, Illinois, Iowa, and Texas were identified as states with tax credit programs. *** stated that, within the context of the blender's tax credit and the RFS, demand tends to gravitate to those states that offer additional tax credits or other incentives, such as Illinois which offers a significant tax incentive at the retail level. It continued that state incentives, along with feedstock availability, transportation links, and economies of scale, are what make the location of a given biodiesel plant crucial to its economic success. Producer *** stated that biodiesel is also blended with heating oil to create bioheat and that New York City has a bioheat mandate which increases demand in winter months, partially offsetting normal seasonality effects in the Northeast. Eight of 17 responding U.S. producers and 7 of 11 responding importers reported that there has been a change in state tax credits since January 1, 2014. *** stated that some state incentives (such as California's Low Carbon Fuel Standard (LCFS) program) and mandates in Minnesota have increased demand for biodiesel since 2014. *** reported that generally states and municipalities have tended to increase credits or other incentives over the past three years. It noted that New York City has implemented its own

mandate and incentive packages, which has increased biodiesel demand not only within the city itself but across the state and the entire Northeast.

Twelve of 25 U.S. producers and 6 of 13 importers reported that the biodiesel market is subject to other distinct conditions of competition, including mandated usage of renewable fuels, such as the EPA's Renewable Volume Obligation (RVO), compliance with the federal RFS program, and increased import competition. Importer *** stated that the price of renewable fuel credits (RINs) under RFS2 effects demand for biodiesel for both discretionary and obligated end users. *** stated that the most successful producers are located in proximity to ample volumes of primary inputs that are available for purchase year-round or can be cheaply stockpiled, permitting continuous operation. In addition, it stated that vertically integrated producers who manufacture their own feedstock from upstream inputs enjoy significant cost advantages. It continued that the domestic industry consists of plants with widely varying capacities and financial strength, so the unit costs of smaller producers can be multiples of the larger plants. It also stated that smaller or poorly-financed facilities lack the working capital necessary to secure a steady stream of feedstock, extend credit terms to customers, and comply with the RFS, and that the costs associated with compliance failure create a preference among obligated parties for RINS generated by well-known, well-financed, and large-scale producers. *** also stated that the ability to reach cost-effective demand locations is essential and that plants with superior rail access and/or proximity to major end users via primary roadways are better able to compete, especially with imports travelling by more efficient ocean freight. It further explained that certainty or confidence in the stability and trajectory of the RFS program has impacted market conditions, that considerable uncertainty existed throughout 2014 and 2015 regarding both the magnitude and effectiveness of the RFS, and that as the EPA progressed towards the finalization of mandates during 2016, demand steadily improved. Eight of 15 responding U.S. producers and 5 of 8 responding importers reported that there has been a change in other conditions of competition since January 1, 2014, including that the fluctuating status of tax credits from year to year, changes in approved pathways for compliance with federal programs, and delays in 2017 mandates undermining demand.

Demand trends

Most firms reported U.S. demand for biodiesel increased since January 1, 2014 (table II-3). Most attributed increased demand to government mandates and incentives, including the federal RFS and California's LCFS programs.

Table II-3
Biodiesel: Firms' responses regarding U.S. demand and demand outside the United States since January 1, 2014

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	23	0	1	1
Importers	13	0	0	0
Demand outside the United States				
U.S. producers	9	1	0	5
Importers	9	0	0	0

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

Substitute products

Most U.S. producers (16 of 25) and importers (9 of 12) reported that there were substitutes for biodiesel. Identified substitutes for biodiesel were other types of diesel, including petrodiesel, renewable diesel, ultra-low sulfur diesel (ULSD), ethanol, and heating oil. Responding firms generally stated that the biodiesel market and the markets for these substitutes are correlated and as prices for these substitutes change, so do the prices for biodiesel.

SUBSTITUTABILITY ISSUES

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

Lead times

Biodiesel is primarily sold from inventory. U.S. producers reported that 60.5 percent of their commercial shipments came from inventories, with 19 of 22 responding U.S. producers reporting lead times ranging from 1 to 15 days. The remaining 39.5 percent of their commercial shipments were produced-to-order, with half of responding U.S. producers (6 of 12) reporting lead times of 7 days or less and 6 reporting lead times ranging from 20 to 45 days. Importers reported that 88.5 percent of their commercial shipments came from inventories, with lead times averaging 36 days. The remaining 11.5 percent of their commercial shipments were produced-to-order, with lead times averaging 90 days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[10] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for biodiesel (table II-4). The major purchasing factors identified by firms include price, quality, availability and reliability of supply, logistics, location, and EPA compliance status. With respect to quality, purchaser *** stated that cloud points and cold flow properties in seasonal temperatures are important. Purchaser *** stated that availability of biodiesel is the most important factor because of the bioheat mandates in the Northeast. It also stated that logistics, via waterborne delivery, is also important.

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

Table II-4
Biodiesel: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Price	5	3	6	13
Availability/logistics	2	4	3	9
Quality	3	2	1	6
Other[1]	2	1	2	5

[1] Other factors include EPA compliance status, market demand, credit, and location.

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

Comparison of U.S.-produced and imported biodiesel

In order to determine whether U.S.-produced biodiesel can generally be used in the same applications as imports from Argentina and Indonesia, U.S. producers and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-5, a majority of responding U.S. producers reported that domestically produced biodiesel and biodiesel imported from Argentina and Indonesia are "always" interchangeable while half of responding importers reported that domestically produced biodiesel and biodiesel imported from Argentina are "frequently" interchangeable and half reported domestically produced biodiesel and biodiesel imported from Indonesia are "sometimes" interchangeable.

Table II-5
Biodiesel: Interchangeability between biodiesel produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries: U.S. vs. Argentina	19	3	1	0	5	6	1	0
U.S. vs. Indonesia	14	6	2	0	3	3	6	0
Subject countries comparisons: Argentina vs. Indonesia	11	5	2	0	3	1	7	0
Nonsubject countries comparisons: U.S. vs. Canada	20	2	1	0	6	5	2	0
U.S. vs. nonsubject	9	6	3	0	4	5	2	0
Argentina vs. Canada	14	3	1	0	4	5	2	0
Argentina vs. nonsubject	8	5	2	0	3	4	3	0
Indonesia vs. Canada	11	5	2	0	3	2	5	1
Indonesia vs. nonsubject	8	5	2	0	3	3	3	1
Canada vs. nonsubject	9	4	2	0	3	4	3	0

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

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

In further explanations, importers *** reported that Indonesian biodiesel has limited interchangeability and is less suitable for cold weather use due to its high cloud point. Also, *** stated that interchangeability factors with respect to Argentina include mono-glyceride content and cold-weather characteristics. It stated that, in addition to cold-weather characteristics, Indonesian biodiesel is only capable of generating conventional biofuel (D6) RINs under the U.S. RFS as opposed to biomass-based diesel (D4) RINs, which are generally more valuable than D6 RINS and thus impacts the ability of Indonesian biodiesel to compete with domestically produced biodiesel. It continued that Canadian biodiesel tends to conform to stricter cold-weather specifications than U.S. biodiesel because of weather conditions in Canada, though there are exceptions, especially among those Canadian plants that principally export to the United States. Importer *** stated that Indonesian biodiesel receives a different RIN (D6) than domestic, Canadian, and Argentine biodiesel (D4) and that as the value of the D6 RIN has declined relative to the D4 RIN, Indonesian biodiesel has not been price competitive. Importer *** stated that a majority of the biodiesel produced in the United States is soybean oil-based and as such Argentine biodiesel is completely interchangeable with most U.S. biodiesel. It continued that there are numerous characteristics of Indonesian biodiesel that make it not necessarily interchangeable with either domestic or Argentine biodiesel.

In addition, producers and importers were asked to assess how often differences other than price were significant in the sale of biodiesel from the United States, subject, or nonsubject countries. As seen in table II-6, a majority of responding U.S. producers reported that there are “never” significant factors other than price between domestically produced biodiesel and biodiesel imported from Argentina and Indonesia while half of responding importers reported that there are “sometimes” or “never” significant differences other than price between domestically produced biodiesel and biodiesel imported from Argentina and Indonesia.

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

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries:								
U.S. vs. Argentina	2	2	4	15	3	3	2	4
U.S. vs. Indonesia	2	1	8	11	3	3	4	2
Subject countries comparisons:								
Argentina vs. Indonesia	1	0	9	8	2	3	5	1
Nonsubject countries comparisons:								
U.S. vs. Canada	2	1	4	16	3	2	1	7
U.S. vs. nonsubject	2	1	7	7	3	3	3	2
Argentina vs. Canada	1	1	4	12	3	2	3	3
Argentina vs. nonsubject	1	1	6	6	2	4	3	1
Indonesia vs. Canada	1	0	7	9	3	2	5	1
Indonesia vs. nonsubject	1	0	6	7	4	1	3	2
Canada vs. nonsubject	1	1	5	7	2	4	3	1

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

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

Factors identified by importers that are significant in sales of biodiesel are quality, RINs acceptance, freight rates, logistical issues, EPA compliance status, and availability. Specifically, *** stated that U.S.-produced biodiesel generally has better cold-weather characteristics than Argentine or Indonesian biodiesel, remaining liquid at lower temperatures and that these quality differences generally make U.S. biodiesel preferable, with greater demand at higher prices than product from the other two countries. Importer *** identified freight costs, quality, and logistics, such as more options to transport via truck or rail to the interior continental United States versus coastal markets. It continued that sometimes customers require a lower cloud point and therefore can utilize imported material to meet these requirements rather than the higher cloud product from the interior continental United States. Lastly, it stated that it assesses a confluence of factors, including time of the year, volume requirements, and location needs.

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 25 firms.[1]

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to 49 firms based on information contained in the petition and available industry sources.[2] Twenty-five firms provided usable data on their productive operations. Figure III-1 presents the production locations of U.S. biodiesel producers.

Figure III-1
Biodiesel: U.S. producers' production locations, 2016

* * * * * * *

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

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

[2] These firms represent approximately 90 percent of total U.S. biodiesel capacity based on Biodiesel Magazine, plant list found at http://www.biodieselmagazine.com/plants/listplants/USA/.

Table III-1
Biodiesel: U.S. producers of biodiesel, their positions on the petition, production locations, and shares of reported production, 2016

Firm	Position on petition	Production location(s)	Share of production (percent)
ADM	Petitioner	Velva, ND Deerfield, MO Mexico, MO	***
Ag Processing	Petitioner	Algona, IA St Joseph, MO Sergeant Bluff, IA	***
American GreenFuels	***	New Haven, CT	***
Cargill	***	Iowa Falls, IA Kansas City, MO	***
Cincinnati Renewable Fuels	***	Cincinnati, OH	***
Crimson	Petitioner	Bakersfield, CA	***
FutureFuel	***	Batesville, AR	***
Hero BX	Petitioner	Erie, PA Moundville, AL	***
High Plains Bioenergy	Petitioner	Guymon, OK St Joseph, MO	***
Imperial Western	***	Coachella, CA	***
Integrity	Petitioner	Morristown, IN	***
Iowa Renewable Energy	Petitioner	Washington, IA	***
Louis Dreyfus	***	Claypool, IN	***
Minnesota Soybean	Petitioner	Brewster, MN	***
New Leaf	Petitioner	San Diego, CA	***
Newport	Petitioner	Newport, RI	***
RB Fuels	***	Port Neches, TX	***
REG	Petitioner	Ralston, IA Mason City, IA Newton, IA Albert Lea, MN Danville, IL Seneca, IL	***
Scott Petroleum	***	Greenville, MS	***
SeQuential Pacific	***	Salem, OR	***
W2 Fuel	***	Adrian, MI Crawfordsville, IA	***
Western Dubuque	Petitioner	Farely, IA	***
Western Iowa Energy	Petitioner	Wall Lake, Iowa	***
White Mountain	Petitioner	N. Haverhill NH	***
World Energy	Petitioner	Rome, GA Boston, MA Camp Hill, PA Natchez, MS Galena Park, TX	***
Total			***

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

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

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

* * * * * * *

As indicated in table III-2, two U.S. producers (***) are related to foreign producers of the subject merchandise and three U.S. producers (***) are related to U.S. importers of the subject merchandise. In addition, as discussed in greater detail below, two U.S. producers (***) directly import the subject merchandise and three purchase the subject merchandise from U.S. importers.

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2014.

Table III-3
Biodiesel: U.S. producers' reported changes in operations, since January 1, 2014

* * * * * * *

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-4 presents U.S. producers' capacity and production of biodiesel reported to U.S. Energy Information Administration ("EIA").[3] Figure III-2 which presents monthly U.S. biodiesel production reported to EIA, shows that U.S. producers' production was consistently higher in each month in 2016 than in 2014, or 2015 and that the lowest production in each year is in the first quarter.

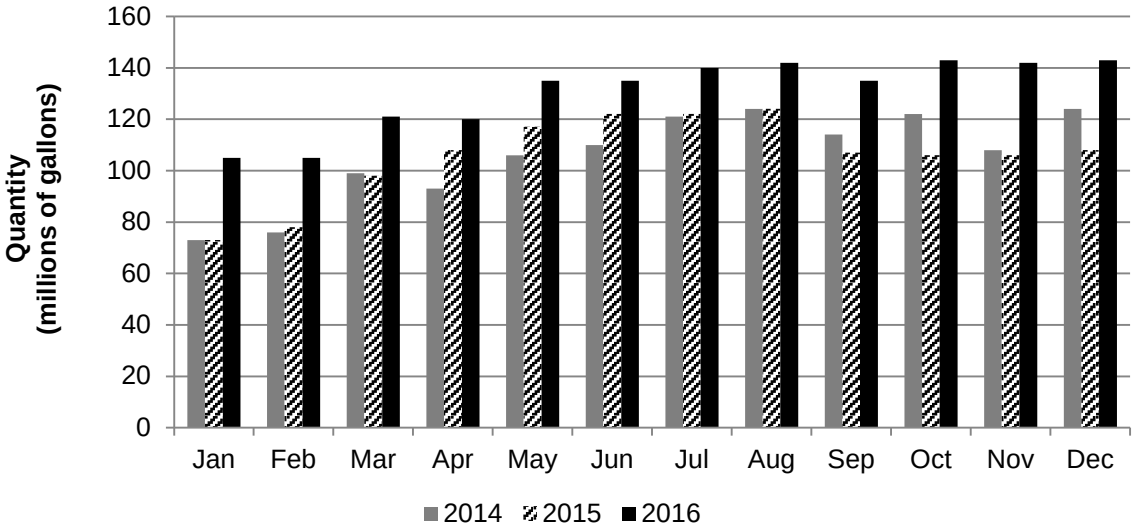
Table III-4
Biodiesel: U.S. producers' production and capacity, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000s of gallons)		
Capacity	2,093,000	2,140,000	2,272,000
Production	1,271,000	1,268,000	1,566,000
	Ratio (percent)		
Capacity utilization	60.7	59.3	68.9

Source: U.S. Energy Information Administration, Monthly Biodiesel Production Report, December 2016.

[3] Respondents argue that the capacity reported by EIA is overstated as some of the capacity is not readily available because it includes production facilities that are not in operation, some of which have not been so in quite some time. Conference transcript, pp. 117-118 (McCullough), and respondent CARBIO, p. 14. Petitioners contend that the EIA capacity data show unused or underutilized available capacity. Conference transcript, pp. 197-198 (Soanes).

Figure III-2
Biodiesel: U.S. producers' monthly production, 2014-16



Source: U.S. Energy Information Administration, Monthly Biodiesel Production Report, December 2016.

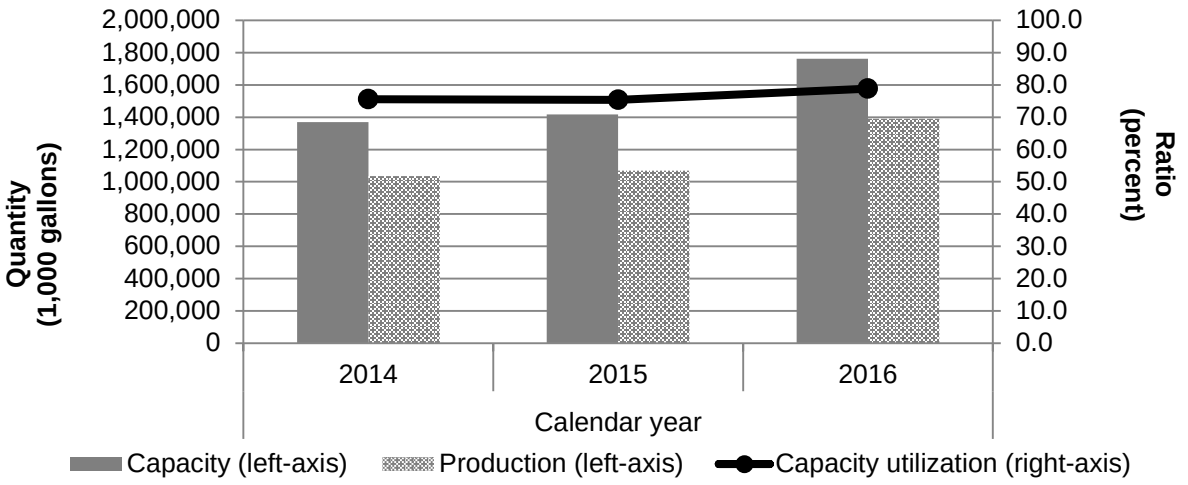
Table III-5 and figure III-3 present U.S. producers' production, capacity, and capacity utilization. Capacity increased 3.6 percent in 2015 and 24.3 percent in 2016, ending 28.8 percent higher than in 2014. The increase in capacity was largely due to ***, which purchased ***. *** accounted for the second largest increase in capacity (equivalent to *** percent of the total increase during 2014-16). *** purchased ***. Fourteen other U.S. producers reported increased capacity, largely in 2016.

Table III-5
Biodiesel: U.S. producers' production, capacity, and capacity utilization, 2014-16

Item	Calendar year		
	2014	2015	2016
	Capacity (1,000 gallons)		
REG	***	***	***
ADM	***	***	***
Cargill	***	***	***
Ag Processing	***	***	***
RB Fuels	***	***	***
Louis Dreyfus	***	***	***
All other firms	***	***	***
Total capacity	1,368,835	1,417,775	1,762,410
	Production (1,000 gallons)		
REG	***	***	***
ADM	***	***	***
Cargill	***	***	***
Ag Processing	***	***	***
RB Fuels	***	***	***
Louis Dreyfus	***	***	***
All other firms	***	***	***
Total production	1,033,683	1,068,995	1,389,618
	Share of production (percent)		
REG	***	***	***
ADM	***	***	***
Cargill	***	***	***
Ag Processing	***	***	***
RB Fuels	***	***	***
Louis Dreyfus	***	***	***
All other firms	***	***	***
Total production	100.0	100.0	100.0
	Capacity utilization (percent)		
REG	***	***	***
ADM	***	***	***
Cargill	***	***	***
Ag Processing	***	***	***
RB Fuels	***	***	***
Louis Dreyfus	***	***	***
All other firms	***	***	***
Average capacity utilization	75.5	75.4	78.8

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

Figure III-3
Biodiesel: U.S. producers' production, capacity, and capacity utilization, 2014-16



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

Production increased 3.4 percent in 2015 and 30 percent in 2016, ending 34.4 percent higher than in 2014. *** accounted for the largest increase in production between 2014 and 2016 (equivalent to *** percent of the total increase). *** reported that the increased production reflects the growing demand during the period. Parties noted that demand increased in 2016 due to the higher EPA mandated volumes under the RFS program and the prospective reinstatement of the blender's tax credit.[4] Production was higher in 2016 compared to 2014 for every responding U.S. producer, except ***.

Soybean oil was used to produce the majority of biodiesel (54.9 percent) during 2014-16, albeit declining over the period. All but seven U.S. producers used soybean oil for at least part of their biodiesel production during 2014-16. Seven U.S. producers used soybean oil for all biodiesel production in each year while other U.S. producers changed the share in each year, some shifting completely to other feedstock. Other types of feedstock, such as used cooking oil ("UCO") and greases, canola, and tallow, accounted for the remainder of U.S. biodiesel production. No U.S. producers reported using palm oil and palm kernel oil in the production of biodiesel.

U.S. producers' capacity utilization increased 3.3 percentage points between 2014 and 2016, declining 0.1 percentage points in 2015 and increasing 3.4 percentage points in 2016. All but three U.S. producers (***) had higher capacity utilization in 2016 compared to 2014. ***.

[4] Conference transcript, p. 24 (Whitney) and p. 161 (Levy).

Alternative products

No producer reported producing other products on the same equipment as biodiesel.[5]

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

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. producers' commercial U.S. shipments, by quantity, increased *** percent in 2015 and *** percent in 2016, ending *** percent higher than in 2014. U.S. producers' commercial U.S. shipments, by value, decreased *** percent in 2015 and increased*** percent in 2016, ending *** percent lower than in 2014. This resulted in the average unit value of U.S. producers' commercial U.S. shipments declining $*** per gallon in 2015 and $*** per gallon in 2016, ending $*** lower than in 2014. While every reporting U.S. producer had lower average unit values for commercial U.S. shipments in 2015 compared to 2014, four U.S. producers had higher average unit values in 2016, and one U.S. producer's average unit value was higher in 2016 than in 2014. As noted in part VI, the value of biodiesel is affected by many factors including the local price of feedstock, the value of RINs, and the blenders' tax credit.

U.S. producers' total shipments, by quantity, increased 1.1 percent in 2015 and 33.1 percent in 2016, ending 34.7 percent higher than in 2014. All U.S. producers except *** had higher quantities of commercial U.S. shipments and total shipments in 2016 than in 2014. U.S. producers' total shipments, by value, decreased 17.3 percent in 2015 and increased 19.1 percent in 2016, ending 1.5 percent lower than in 2014. This resulted in the average unit value of U.S. producers' total shipments declining $0.61 per gallon in 2015 and $0.29 per gallon in 2016, ending $0.90 lower than in 2014.

Seven U.S. producers internally consumed biodiesel during 2014-16, with the vast majority reported by three firms, ***. Four U.S. producers had transfers to related firms during 2014-16, with the majority reported by ***. Four firms had exports during 2014-16, mainly to ***, with the majority reported by ***.

[5] Several U.S. producers reported producing glycerin, sterols, ester bottoms, and skimmed fatty acids, which are by-products of the biodiesel production process. Conference transcript, pp. 192-193 (Stone) and p. 224 (Stone).

Table III-6
Biodiesel: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
Commercial U.S. shipments	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	1,039,291	1,051,164	1,399,531
	Value (1,000 dollars)		
Commercial U.S. shipments	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Independent RIN sales	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	3,484,201	2,882,102	3,431,344
	Unit value (dollars per gallons)		
Commercial U.S. shipments	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	3.35	2.74	2.45
	Share of quantity (percent)		
Commercial U.S. shipments	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	100.0	100.0	100.0
	Share of value (percent)		
Commercial U.S. shipments	***	***	***
Internal consumption	***	***	***
Transfers to related firms	***	***	***
Independent RIN sales	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	100.0	100.0	100.0

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

U.S. producer's commercial U.S. shipments by type

Table III-7 presents U.S. producers' commercial U.S. shipments by level of blending and RIN status. The majority of U.S. producers' commercial U.S. shipments are sold with RINs, although the share declined from *** percent in 2014, to *** percent in 2015, and to *** percent in 2016. The majority of U.S. producers' commercial U.S. shipments during 2014-16 were B99, increasing from *** percent in 2014, to *** percent in 2015 and *** percent in 2016.[6] The average unit value for each of the types of biodiesel declined between 2014 and 2016, although B100 sold with and without RINs declined to their lowest levels in 2015 and increased in 2016, albeit below the average unit values in 2014. The average unit value of B99 sold with RINs was higher than that of B100 with RINs in 2014, but then fell below in 2015 and 2016. Several producers noted that the existence (in 2016) or likelihood of reinstatement (in 2015) of the blender's tax credit affected the price of B99 relative to B100.[7]

[6] U.S. producer Louis Dreyfus noted that when the blenders' tax credit exists, as it did during 2016, U.S. producers generally sold B99. Conference transcript, p. 39 (Doyle).

[7] Conference transcript, pp. 39 and 80-81 (Doyle), and email from ***, April 17, 2017, email from ***, April 17, 2017, ***, April 17, 2017, and email from ***, April 17, 2017.

Table III-7
Biodiesel: U.S. producers' commercial U.S. shipments, by type 2014-16

* * * * * * *

U.S. producer's monthly U.S. shipments

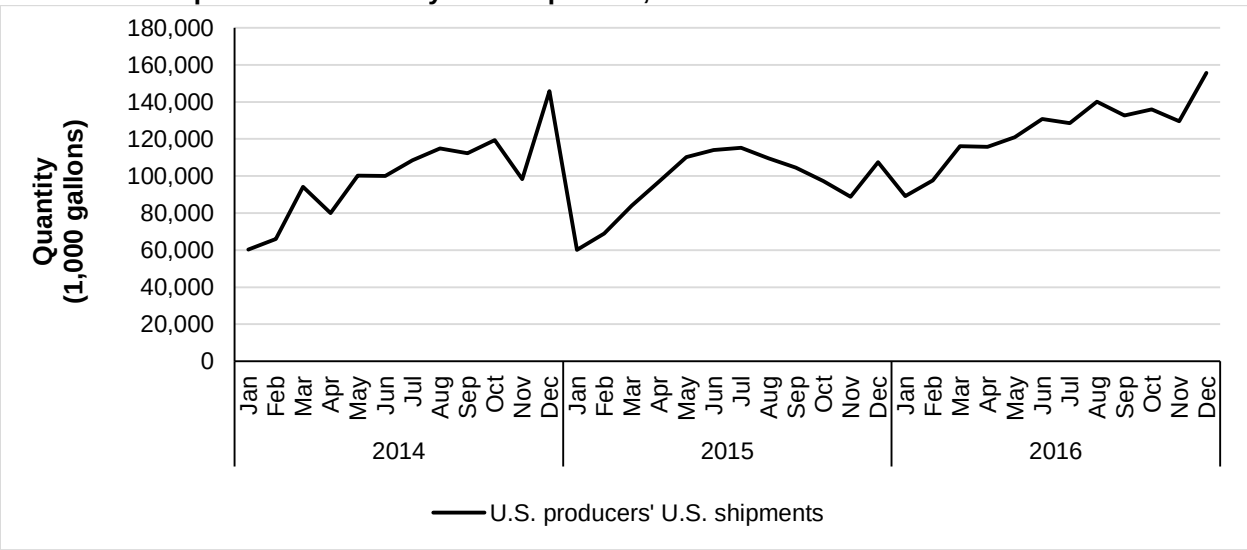
Table III-8 and figure III-4 present U.S. producers' monthly U.S. shipments reported to EIA.

Table III-8
Biodiesel: U.S. producers' monthly U.S. shipments, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
January	60,372	60,076	89,236
February	66,078	69,034	97,690
March	94,178	83,978	116,172
April	80,038	96,920	115,668
May	100,264	110,290	120,972
June	99,954	114,080	130,760
July	108,560	115,290	128,500
August	114,912	109,450	140,172
September	112,288	104,600	132,700
October	119,320	97,238	136,010
November	98,270	88,808	129,616
December	145,858	107,414	155,640
Annual U.S. shipments	1,200,092	1,157,178	1,493,136

Source: U.S. Energy Information Administration, Monthly Biodiesel Production Report, December 2016.

Figure III-4
Biodiesel: U.S. producers' monthly U.S. shipments, 2014-16



Source: U.S. Energy Information Administration, Monthly Biodiesel Production Report, December 2016.

U.S. PRODUCERS' INVENTORIES

Table III-9 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.** U.S. producers' end-of-period inventories increased 50.2 percent in 2015 and then declined 15.7 percent in 2016, ending 26.7 percent higher than in 2014. ***, which accounted for the largest change in quantity of inventories, reported that the increase in inventories in 2015 was ***.

Table III-9
Biodiesel: U.S. producers' inventories, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
U.S. producers' end-of-period inventories	31,408	47,184	39,781
	Ratio (percent)		
Ratio of inventories to.--			
U.S. production	3.0	4.4	2.9
U.S. shipments	***	***	***
Total shipments	3.0	4.5	2.8

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

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' imports and purchases of biodiesel are presented in table III-10. Two producers (***) imported from subject sources and two (***) imported from nonsubject sources.

Table III-10
Biodiesel: U.S. producers' U.S. production, imports and purchases, 2014-16

* * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-11 shows U.S. producers' employment-related data. The number of PRWs, total hours work, wages page, hourly wages, and productivity increased between 2014 and 2016, while hours worked per PRW declined and unit labor costs remained constant. All U.S. producers except two (***) had a greater number of PRWs in 2016 than in 2014, with most reporting increases due to growth in production and/or demand.

Table III-11
Biodiesel: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2014-16

Item	Calendar year		
	2014	2015	2016
Production and related workers (PRWs) (number)	1,042	1,154	1,336
Total hours worked (1,000 hours)	2,250	2,422	2,822
Hours worked per PRW (hours)	2,159	2,099	2,112
Wages paid ($1,000)	65,889	74,801	85,483
Hourly wages (dollars per hour)	$29.28	$30.88	$30.29
Productivity (gallons per hour)	459.4	441.4	492.4
Unit labor costs (dollars per gallons)	$0.06	$0.07	$0.06

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 18 firms believed to be importers of biodiesel, as well as to all known U.S. producers of biodiesel.[1] [2] Usable questionnaire responses were received from 13 companies, representing a large majority of U.S. imports from Argentina and Indonesia between January 2014 and December 2016. Nonsubject imports from Canada accounted for a moderate portion of U.S. imports of biodiesel. Table IV-1 lists all responding U.S. importers of biodiesel from Argentina and Indonesia and other sources, their locations, and their shares of U.S. imports, in 2016.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by ***, may have accounted for more than one percent of total imports under HTS subheadings 3826.00.10 and 3826.00.30 during January 2014-December 2016. The Commission elected not to issue importers' questionnaires to the following firms identified in the petition: BNP Paribas RCC IN, GEFCO Argentina, Molinos de la Plata, Oleaginosa Moreno Hermanos S.A.C.I.F.I and A., Puma Energy Cariba, LLC, and Vicentin S.A.I.C. Commission staff believes these firms are not U.S. importers of subject merchandise because the ***.

[2] Data for U.S. imports from Argentina, Indonesia, and all nonsubject sources (for all periods) are based on official U.S. import statistics using HTS statistical reporting numbers under which in-scope merchandise is primarily classifiable (3826.00.1000 and 3826.00.3000). U.S. importers' U.S. commercial shipment data are based on Commission questionnaire responses.

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

Firm	Headquarters	Share of imports by source (percent)				
		Argentina	Indonesia	Subject sources	Nonsubject sources	All import sources
ADM	Decatur, IL	***	***	***	***	***
BioSphere[1]	Houston, TX	***	***	***	***	***
Biox[2]	Morristown, NJ	***	***	***	***	***
Cargill[3]	Wayzata, MN	***	***	***	***	***
Kolmar[4]	Bridgeport, CT	***	***	***	***	***
Louis Dreyfus[5]	Claypool, IN	***	***	***	***	***
Noble Americas[6]	Stamford, CT	***	***	***	***	***
Regi	Ames, IA	***	***	***	***	***
Shell Oil[7]	Houston, TX	***	***	***	***	***
Targray[8]	Massena, NY	***	***	***	***	***
Trafigura[9]	Houston, TX	***	***	***	***	***
VicNRG[10]	Southlake, TX	***	***	***	***	***
Wilmar Oleo[11]	Pearland, TX	***	***	***	***	***
Total		100.0	100.0	100.0	100.0	100.0

[1] BioSphere Fuels, LLC is ***. Conference transcript, p. 23 (Whitney).
[2] BIOX USA Limited is ***.
[3] Cargill Inc. ***.
[4] Kolmar Americas, Inc. is ***.
[5] Louis Dreyfus Claypool Holdings LLC is ***.
[6] Noble Americas Corp is ***.
[7] Shell Oil Company is ***.
[8] Targray Industries Inc. is ***.
[9] Trafigura Trading LLC is ***.
[10] VicNRG, LLC is ***.
[11] Wilmar Oleo North America is ***.

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

U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of biodiesel from Argentina, Indonesia, and all other sources. In 2016, imports from Argentina accounted for 62.8 percent of total U.S. imports by quantity and 62.1 percent by value. Imports of biodiesel from Indonesia accounted for 15.8 percent by quantity and 14.4 percent by value. The largest nonsubject supplier is Canada, which accounted for 14.5 percent of total imports by quantity and 16.1 percent by value. Other nonsubject suppliers include Germany and South Korea.

Table IV-2
Biodiesel: U.S. imports by source, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
U.S. imports from.--			
Argentina	46,719	196,930	440,346
Indonesia	51,038	70,702	110,746
Subject sources	97,757	267,632	551,092
Canada	74,051	58,422	101,743
All other sources	19,948	25,952	48,685
Nonsubject sources	93,999	84,375	150,429
All import sources	191,756	352,007	701,521
	Value (1,000 dollars)		
U.S. imports from.--			
Argentina	149,116	523,190	1,314,492
Indonesia	159,371	182,913	304,255
Subject sources	308,487	706,102	1,618,747
Canada	246,745	160,681	340,884
All other sources	80,659	71,759	158,062
Nonsubject sources	327,404	232,440	498,947
All import sources	635,890	938,542	2,117,694
	Unit value (dollars per gallons)		
U.S. imports from.--			
Argentina	3.19	2.66	2.99
Indonesia	3.12	2.59	2.75
Subject sources	3.16	2.64	2.94
Canada	3.33	2.75	3.35
All other sources	4.04	2.77	3.25
Nonsubject sources	3.48	2.75	3.32
All import sources	3.32	2.67	3.02

Table continued on the next page.

Table IV-2--Continued
Biodiesel: U.S. imports by source, 2014-16

Item	Calendar year		
	2014	2015	2016
	Share of quantity (percent)		
U.S. imports from.--			
Argentina	24.4	55.9	62.8
Indonesia	26.6	20.1	15.8
Subject sources	51.0	76.0	78.6
Canada	38.6	16.6	14.5
All other sources	10.4	7.4	6.9
Nonsubject sources	49.0	24.0	21.4
All import sources	100.0	100.0	100.0
	Share of value (percent)		
U.S. imports from.--			
Argentina	23.4	55.7	62.1
Indonesia	25.1	19.5	14.4
Subject sources	48.5	75.2	76.4
Canada	38.8	17.1	16.1
All other sources	12.7	7.6	7.5
Nonsubject sources	51.5	24.8	23.6
All import sources	100.0	100.0	100.0
	Ratio to U.S. production		
U.S. imports from.--			
Argentina	4.5	18.4	31.7
Indonesia	4.9	6.6	8.0
Subject sources	9.5	25.0	39.7
Canada	7.2	5.5	7.3
All other sources	1.9	2.4	3.5
Nonsubject sources	9.1	7.9	10.8
All import sources	18.6	32.9	50.5

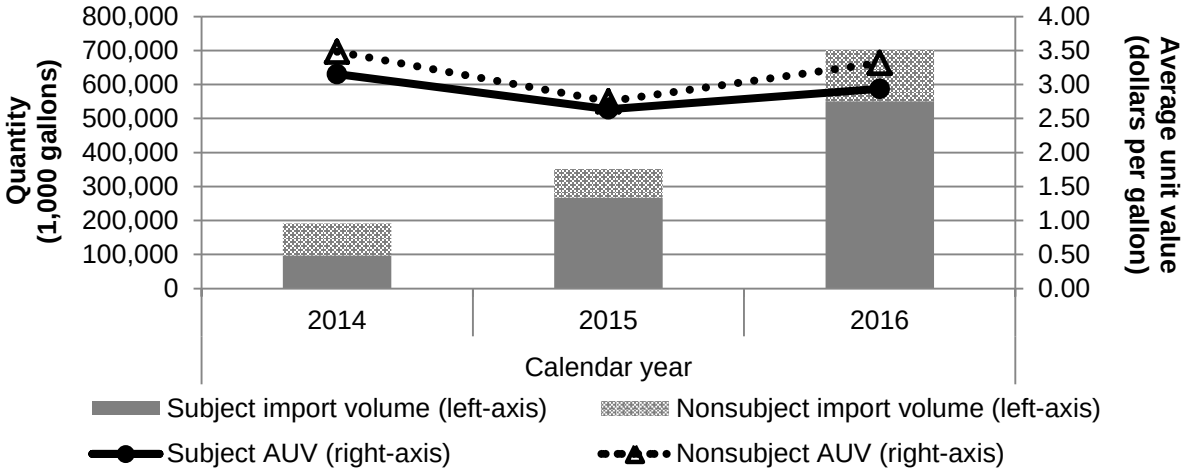
Source: Official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000, assessed April 2, 2017.

From 2014 to 2016, the quantity of imports from Argentina increased from 46.7 million gallons to 440.3 million gallons, an increase of 842.5 percent. As U.S. imports from Argentina increased, so too did its share of all imports, rising from 23.4 percent in 2014 to 62.1 percent in 2016. The average unit value of imports from Argentina fluctuated from year to year, decreasing from $3.19 per gallon in 2014 to $2.66 per gallon in 2015 and then increasing to $2.99 per gallon in 2016, an overall decrease of 6.3 percent.

The volume of imports from Indonesia increased from 51.0 million gallons in 2014 to 110.7 million gallons in 2016, an increase of 117.0 percent. Despite this increase, Indonesia's share of imports decreased from 26.6 percent in 2014 to 15.8 percent in 2016. The decrease in import share is attributable to the volume of imports from Argentina increasing at a greater rate. The average unit value of imports from Indonesia decreased from $3.12 per gallon in 2014 to $2.59 per gallon in 2015 and then increased to $2.75 per gallon in 2016, an overall decrease of 11.9 percent. The average unit value of imports from Indonesia was lower than those from Argentina for each year.

The quantity of imports from Canada fluctuated year to year, decreasing from 74.1 million gallons in 2014 to 58.4 million gallons in 2015, and then increasing to 101.7 million gallons in 2016, an overall increase of 37.4 percent. Canada's share of imports decreased from 38.6 percent in 2014 to 14.5 percent in 2016. Much of this decline in import share occurred from 2014 to 2015 when it fell by 22.0 percentage points. Following a similar trajectory as imports from subject countries, the average unit value of imports from Canada fluctuated from year to year. It decreased from $3.33 per gallon in 2014 to $2.75 per gallon in 2015 and then increased to $3.35 per gallon in 2016. The average unit values of imports from Canada were higher than those from Indonesia and Argentina for each year.

Figure IV-1
Biodiesel: U.S. import volumes and prices, 2014-16



Source: Official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000, assessed April 2, 2017.

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[3] Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[4] In the most recent 12-month period preceding the filling of the petitions, March 2016-February 2017, subject imports from Argentina accounted for 63.4 percent of total imports by quantity and subject imports from Indonesia accounted for 15.6 percent of total imports by quantity in the antidumping and countervailing duty investigations.

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. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

Fungibility

Table IV-3 presents data on U.S. producers' and foreign producers' biodiesel by input in 2016. While U.S. biodiesel was produced from a variety of inputs, most Argentine biodiesel was produced from soybean oil and most Indonesian biodiesel was produced from palm oil.

[3] 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)).

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

Table IV-3
Biodiesel: U.S. producers' and foreign producers' production of biodiesel by input, 2016.

Item	Production 2016			
	U.S. producers	Producers in Argentina	Producers in Indonesia	Subject countries
	Quantity (1,000 gallons)			
Production of biodiesel from.--				
Soybean methyl esters	715,706	450,411	---	450,411
Palm oil methyl esters	0	---	***	***
Other inputs[1]	673,912	---	***	***
All inputs	1,389,618	450,411	***	***
	Share of quantity (percent)			
Share of production of biodiesel from.--				
Soybean methyl esters	51.5	100.0	***	***
Palm oil methyl esters	---	---	***	***
Other inputs[1]	48.5	---	***	***
All inputs	100.0	100.0	100.0	100.0

[1]U.S. producers indicating using used cooking oil (13 firms), corn or canola oil (nine firms), animal fats or tallow (five firms) and other inputs, to produce biodiesel.

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

As can be seen in table IV-4, 27 out of 32 U.S. producers reported producing either No 1 B S15 or No 2 B S15 grade biodiesel. Six out of 11 importers of Argentine biodiesel and 2 out of 6 importers of Indonesian biodiesel reported importing No 2 B S15 grade biodiesel.

Table IV-4
Biodiesel: U.S. producers' and foreign producers' production of biodiesel by input, 2016.

Item	Calendar year 2016			
	U.S. producers' U.S. production	U.S. importers' U.S. imports		
		Argentina	Indonesia	Subject sources
	Number of firms			
Biodiesel by grade.--				
No 1 B S15	11	2	1	2
No 1 B S500	1	1	1	1
No 2 B S15	16	6	2	6
No 2 B S500	2	1	1	2
Other	2	1	1	1

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

Table IV-5 presents U.S. importers' U.S. commercial shipments of imports from Argentina by level of blending and RIN status.

Table IV-5
Biodiesel: U.S. importers' commercial U.S. shipments of imports from Argentina by product type and RIN status, 2014-16

Item	Calendar year			Between calendar years		
	2014	2015	2016	2014-16	2014-15	2015-16
	Quantity (1,000 gallons)			Change (percent)		
U.S. importers: Argentina.-- B100 sold with RINs	***	***	***	***	***	***
B100 sold without RINs	***	***	***	***	***	***
B99 sold with RINs	***	***	***	***	***	***
B99 sold without RINs	***	***	***	***	***	***
Commercial U.S. shipments	***	164,460	396,012	***	***	140.8
	Value (1,000 dollars)			Change (percent)		
U.S. importers: Argentina.-- B100 sold with RINs	***	***	***	***	***	***
B100 sold without RINs	***	***	***	***	***	***
B99 sold with RINs	***	***	***	***	***	***
B99 sold without RINs	***	***	***	***	***	***
Commercial U.S. shipments	***	337,183	724,188	***	***	114.8
	Unit value (dollars per gallons)			Change (percent)		
U.S. importers: Argentina.-- B100 sold with RINs	***	***	***	***	***	***
B100 sold without RINs	***	***	***	***	***	***
B99 sold with RINs	***	***	***	***	***	***
B99 sold without RINs	***	***	***	***	***	***
Commercial U.S. shipments	***	2.05	1.83	***	***	(10.8)
	Share of quantity (percent)			Change (percentage points)		
U.S. importers: Argentina.-- B100 sold with RINs	***	***	***	***	***	***
B100 sold without RINs	***	***	***	***	***	***
B99 sold with RINs	***	***	***	***	***	***
B99 sold without RINs	***	***	***	***	***	***
Commercial U.S. shipments	100.0	100.0	100.0	---	---	---
	RIN ratio (RINs per gallon sold)			Change (percentage points)		
U.S. importers: Argentina.-- B100 sold with RINs	***	***	***	***	***	***
B100 sold without RINs	***	***	***	***	***	***
B99 sold with RINs	***	***	***	***	***	***
B99 sold without RINs	***	***	***	***	***	***
Commercial U.S. shipments	***	0.8	1.0	***	***	0.2

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

From 2014 to 2016, total U.S. shipments of imports from Argentina increased from *** gallons to 396.0 million gallons, an increase of *** percent. The majority of U.S. importers' shipments of imports from Argentina were of ***. These shipments accounted for *** to *** percent of shipments of imports from Argentina during 2014-2016. U.S. importers' shipments

of B99 with RINs from Argentina followed the same trajectory as total shipments, increasing from *** gallons in 2014 to *** gallons in 2016, an increase of *** percent. U.S. importers' U.S. shipments of B100 with RINs from Argentina increased by *** percent, but accounted for *** of total shipments from Argentina in 2016. Shipments of biodiesel without RINs also increased from 2014 to 2016, but in total were *** the volume of shipments of B99 with RINs in 2016. The discrepancy between the volume of shipments of B99 with RINs and all other products is attributed to the blender's tax credit.[5] Unit values for all product types and RIN statuses decreased from 2014 to 2016, in particular for B99 without RINs, which decreased by *** percent. The average unit value for all shipments of imports from Argentina was lower than U.S producers' average unit values for each calendar year.

Table VI-6 presents U.S. importers' U.S. commercial shipments of imports from Indonesia by level of blending and RIN status.

Table IV-6
Biodiesel: U.S. importers' commercial U.S. shipments of imports from Indonesia by product type and RIN status, 2014-16

* * * * * * *

Following a similar trend as total shipments from Argentina, U.S importers' shipments of imports from Indonesia increased from *** gallons in 2014 to *** gallons in 2016, an increase of *** percent. In 2014 and 2015, the majority of shipments of imports from Indonesia were ***, which accounted for *** percent to *** percent of total shipments. In 2016, U.S. shipments of imports from Indonesia were ***. This shift is attributable to shipments of B100 without RINs increasing from *** gallons in 2014 to *** gallons in 2016, and shipments of B100 with RINs decreasing from *** gallons to *** gallons. U.S. importers' shipments of imports from Indonesia were nearly *** of their shipments of imports from Argentina in 2016. Unit values for all product types and RIN statuses decreased from 2014 to 2016, in particular for B100 without RINs and B99 without RINs, which fell by *** percent and *** percent, respectively. The average unit value for all shipments of imports from Indonesia was higher than all shipments of imports from Argentina in 2014 and 2015, but lower in 2016.

Figure IV-2 presents U.S. producers' and U.S. importers' U.S. shipments by blend type in 2016.

Figure IV-2
Biodiesel: U.S. producers' and U.S. importers U.S. shipments by product type, 2016

* * * * * * *

[5] Conference transcript, p. 39 and pp.80-81 (Doyle).

Presence in the market

Table IV-7 and figure IV-3 present U.S. imports by month from each source. Regarding U.S. imports of biodiesel from Argentina, December 2016 had the greatest quantity (77.9 million gallons). Subject imports from Indonesia did not exceed this volume in any of the months from January 2014 to December 2016. Imports from Indonesia peaked at 18 million gallons in June 2016. There were no subject imports from Indonesia in 9 out 36 months from January 2014 to December 2016, with 6 out of the 9 months being in the winter.

Table IV-7
Biodiesel: U.S. imports, by month, January 2014-December 2016

Item	Calendar year					
	2014	2015	2016	2014	2015	2016
	Quantity (1,000 gallons)					
	Argentina			Indonesia		
January	0	12,681	2,041	0	0	0
February	0	8,323	5,956	3,580	7,453	0
March	0	2,137	10,841	0	10,011	5,172
April	0	8,081	22,106	0	3,881	8,908
May	0	1,068	30,170	0	2,232	11,264
June	0	8,982	34,428	4,474	12,616	18,235
July	5,439	25,217	49,630	7,178	8,569	9,874
August	3,067	21,450	47,684	10,441	10,169	13,443
September	5,843	27,443	44,941	4,643	7,026	15,300
October	5,786	22,944	54,393	11,030	4,951	9,967
November	11,946	22,507	60,249	9,692	0	15,746
December	14,639	36,096	77,909	0	3,795	2,836
Annual U.S. imports	46,719	196,930	440,346	51,038	70,702	110,746
	Subject Sources			Canada		
January	0	12,681	2,041	1,922	1,754	6,780
February	3,580	15,776	5,956	3,897	3,352	3,154
March	0	12,148	16,012	9,949	4,437	8,400
April	0	11,961	31,014	5,080	2,637	4,689
May	0	3,300	41,434	4,616	4,718	8,465
June	4,474	21,598	52,663	3,738	5,235	9,946
July	12,616	33,786	59,504	6,571	13,081	8,548
August	13,508	31,619	61,126	8,897	5,031	10,986
September	10,486	34,469	60,242	4,111	2,404	11,761
October	16,816	27,895	64,359	8,775	6,974	6,363
November	21,638	22,507	75,995	8,505	5,772	7,004
December	14,639	39,891	80,745	7,989	3,028	15,648
Annual U.S. imports	97,757	267,632	551,092	74,051	58,422	101,743

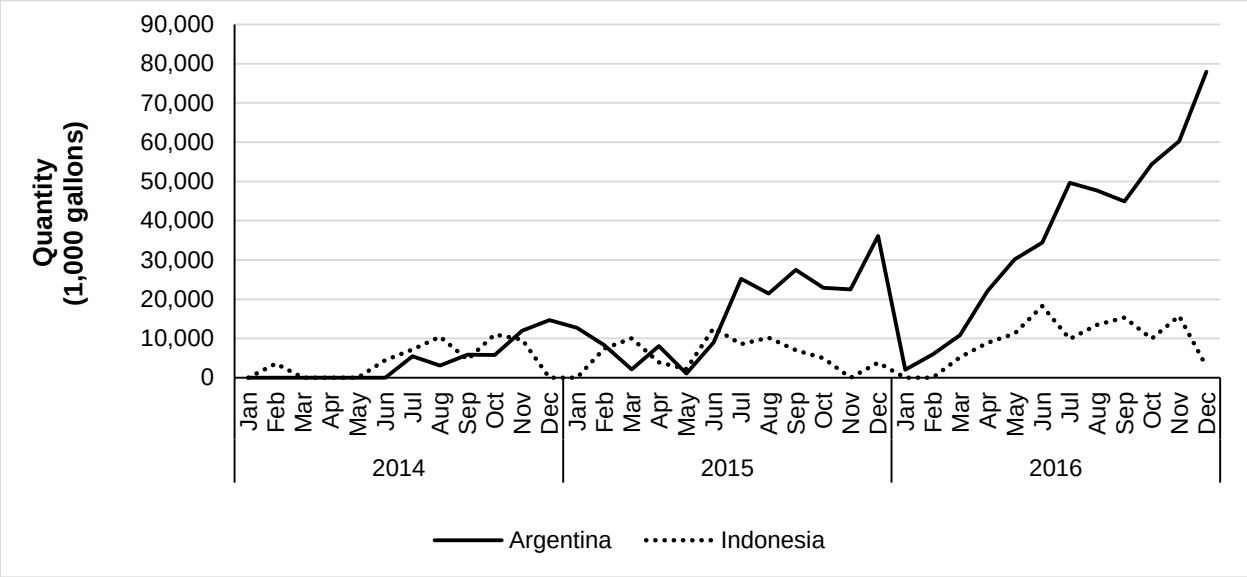
Table continued on the next page.

Table IV-7—Continued
Biodiesel: U.S. imports, by month, January 2014-December 2016

Item	Calendar year					
	2014	2015	2016	2014	2015	2016
	Quantity (1,000 gallons)					
	All Other Sources			Nonsubject Sources		
January	7,715	113	58	9,637	1,867	6,838
February	6	1,536	35	3,903	4,888	3,189
March	1	1,248	2,884	9,950	5,685	11,284
April	1,483	1,541	4,788	6,563	4,178	9,477
May	1	7,143	76	4,617	11,861	8,541
June	7	1,543	2,098	3,744	6,778	12,044
July	1,559	2,765	2,625	8,130	15,845	11,173
August	1,702	2,776	4,797	10,599	7,807	15,783
September	235	2,154	2,822	4,346	4,557	14,583
October	186	1,457	5,218	8,960	8,431	11,582
November	6,987	1,244	8,832	15,492	7,016	15,836
December	67	2,433	14,453	8,057	5,461	30,100
Annual U.S. imports	19,948	25,952	48,685	93,999	84,375	150,429
	All Import Sources					
January	9,637	14,548	8,879			
February	7,483	20,664	9,144			
March	9,950	17,833	27,296			
April	6,563	16,139	40,491			
May	4,617	15,161	49,976			
June	8,218	28,376	64,707			
July	20,746	49,631	70,677			
August	24,107	39,426	76,910			
September	14,832	39,026	74,824			
October	25,776	36,327	75,941			
November	37,130	29,523	91,831			
December	22,695	45,352	110,845			
Annual U.S. imports	191,756	352,007	701,521			

Source: Official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000, accessed April 2, 2017.

Figure IV-3
Biodiesel: U.S. imports from Argentina and Indonesia, by month, January 2014-December 2016



Source: Official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000, accessed April 2, 2017.

Respondent CARBIO[6] notes that seasonality exists in the U.S. market, as changes in temperatures force states to adjust the amount of biodiesel that can be blended in diesel fuel sold in that state from month to month.[7] CARBIO also noted that total domestic shipments are usually lowest in the first quarter, increase in the second and third quarter, and remain constant or even decrease in the fourth quarter. According to respondent, BioSphere, Argentine biodiesel typically enters the U.S. market in the spring when demand starts to increase while domestically produced biodiesel enters the market in the winter when demand is low.[8]

Petitioners note that while the biodiesel market is seasonal, the domestic like product or subject imports are not adversely affected by seasonal patterns. Domestic like product and subject imports are sold in the U.S. throughout the year in substantial quantities. Petitioner REG states that there is enough supply of feedstock and fuel to meet demand throughout the year.[9] Petitioner RBF noted states that it has no issues sourcing feedstock for its operations.[10]

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[6] Cámara Argentina de Biocombustiles (CARBIO) is an association of biodiesel producers in Argentina. Its members include: Cargill SACI, Cofco Argentina SA, LDC Argentina SA, Oleaginosa Moreno Hermanos SA, T6 Industrial SA, Molinos Agro SA, and Vicentin SAIC. These companies provided foreign producers' questionnaire responses and participated in the staff conference as CARBIO. Details on these companies and their operations are discussed in more detail in part VII.

[7] Respondent CARBIO's postconference brief, p. 4.

[8] Conference transcript, p. 29 (Whitney).

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

[10] Ibid.

Geographical markets

Official statistics from Commerce show that in 2016, U.S. imports of biodiesel from Argentina entered the United States through U.S. ports located in the eastern coast (48.6 percent) or in the southern border (51.4 percent). The same source shows that nearly all U.S. imports of biodiesel from Indonesia entered through U.S. ports located in the southern border (89.8 percent) or in the eastern coast (10.2 percent). The cloud point– the temperature at which biodiesel will congeal – of Indonesian palm oil based biodiesel is in the range of 55-60 degrees Fahrenheit, while Argentine soybean oil based biodiesel has a cloud point of approximately 35 degrees Fahrenheit. Due to a higher cloud point temperature, Indonesian palm oil based biodiesel does not hold up as well in colder climates as Argentine soybean oil based biodiesel.[11]

The majority of imports from Canada, the largest nonsubject source, entered through U.S. ports located in the eastern coast (38.9 percent), in the northern border (33.0 percent) or in the western border (22.5 percent). The majority of biodiesel imports from all other sources entered through U.S. ports in the eastern coast (50.9 percent) or in the western coast (42.7 percent). Table IV-8 presents the volume and share of U.S. imports by port of entry.

[11] Respondents may have been comparing pure palm oil biodiesel and pure soybean oil biodiesel in their statements. Conference transcript, p. 49 (Cummings)

Table IV-8
Biodiesel: U.S. imports by port of entry, 2016

Item	Port of entry				
	East	North	South	West	Total
	Quantity (1,000 gallons)				
U.S. imports from.--					
Argentina	213,806	0	226,540	0	440,346
Indonesia	11,344	0	99,402	0	110,746
Subject sources	225,150	0	325,942	0	551,092
Canada	39,623	33,556	5,657	22,907	101,743
All other sources	24,801	505	2,584	20,797	48,685
Nonsubject sources	64,424	34,061	8,241	43,703	150,429
All import sources	289,574	34,061	334,183	43,703	701,521
	Share of quantity across (percent)				
U.S. imports from.--					
Argentina	48.6	0.0	51.4	0.0	100.0
Indonesia	10.2	0.0	89.8	0.0	100.0
Subject sources	40.9	0.0	59.1	0.0	100.0
Canada	38.9	33.0	5.6	22.5	100.0
All other sources	50.9	1.0	5.3	42.7	100.0
Nonsubject sources	42.8	22.6	5.5	29.1	100.0
All import sources	41.3	4.9	47.6	6.2	100.0
	Share of quantity down (percent)				
U.S. imports from.--					
Argentina	73.8	0.0	67.8	0.0	62.8
Indonesia	3.9	0.0	29.7	0.0	15.8
Subject sources	77.8	0.0	97.5	0.0	78.6
Canada	13.7	98.5	1.7	52.4	14.5
All other sources	8.6	1.5	0.8	47.6	6.9
Nonsubject sources	22.2	100.0	2.5	100.0	21.4
All import sources	100.0	100.0	100.0	100.0	100.0

Source: Official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000.

APPARENT U.S. CONSUMPTION

Table IV-9 and figure IV-4 present data on apparent U.S. consumption and U.S. market shares for biodiesel. Apparent U.S. consumption, based on quantity, increased from 1.4 billion gallons in 2014 to 2.2 billion gallons in 2016, an increase of 57.7 percent. Fluctuating year-to-year, U.S. producers' U.S. shipments increased at a lower rate than apparent U.S. consumption, increasing by 24.4 percent during 2014-2016. From 2014 to 2016, U.S. producers' market share decreased by 18.2 percentage points while the market share of imports from Argentina and Indonesia increased by 16.7 percentage points and 1.3 percentage points respectively. The market share of imports from Canada, on the other hand, decreased by 0.7 percentage points.

Table IV-9
Biodiesel: Apparent U.S. consumption of biodiesel, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
U.S. producers' U.S. shipments	1,200,092	1,157,178	1,493,136
U.S. imports from.--			
Argentina	46,719	196,930	440,346
Indonesia	51,038	70,702	110,746
Subject sources	97,757	267,632	551,092
Canada	74,051	58,422	101,743
All other sources	19,948	25,952	48,685
Nonsubject sources	93,999	84,375	150,429
All import sources	191,756	352,007	701,521
Apparent U.S. consumption	1,391,848	1,509,185	2,194,657
	Value (1,000 dollars)		
U.S. producers' U.S. shipments	4,006,546	3,163,256	3,669,791
U.S. imports from.--			
Argentina	149,116	523,190	1,314,492
Indonesia	159,371	182,913	304,255
Subject sources	308,487	706,102	1,618,747
Canada	246,745	160,681	340,884
All other sources	80,659	71,759	158,062
Nonsubject sources	327,404	232,440	498,947
All import sources	635,890	938,542	2,117,694
Apparent U.S. consumption	4,642,437	4,101,798	5,787,485

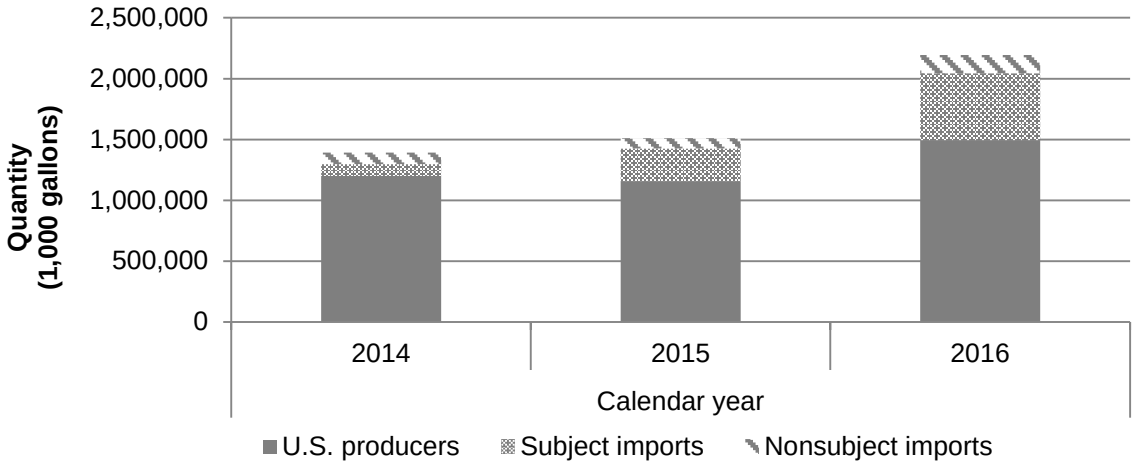
Table continued on the next page.

Table IV-9--Continued
Biodiesel: Apparent U.S. consumption of biodiesel, 2014-16

Item	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
Apparent U.S. consumption	1,391,848	1,509,185	2,194,657
	Share of quantity (percent)		
U.S. producers' U.S. shipments	86.2	76.7	68.0
U.S. imports from.--			
Argentina	3.4	13.0	20.1
Indonesia	3.7	4.7	5.0
Subject sources	7.0	17.7	25.1
Canada	5.3	3.9	4.6
All other sources	1.4	1.7	2.2
Nonsubject sources	6.8	5.6	6.9
All import sources	13.8	23.3	32.0
	Value (1,000 dollars)		
Apparent U.S. consumption	4,642,437	4,101,798	5,787,485
	Share of value (percent)		
U.S. producers' U.S. shipments	86.3	77.1	63.4
U.S. imports from.--			
Argentina	3.2	12.8	22.7
Indonesia	3.4	4.5	5.3
Subject sources	6.6	17.2	28.0
Canada	5.3	3.9	5.9
All other sources	1.7	1.7	2.7
Nonsubject sources	7.0	5.7	8.6
All import sources	13.7	22.9	36.6

Source: U.S. Energy Information Administration | Monthly Biodiesel Production Report and official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000.

Figure IV-4
Biodiesel: Apparent U.S. consumption of biodiesel, 2014-16



Source: U.S. Energy Information Administration | Monthly Biodiesel Production Report and official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000.

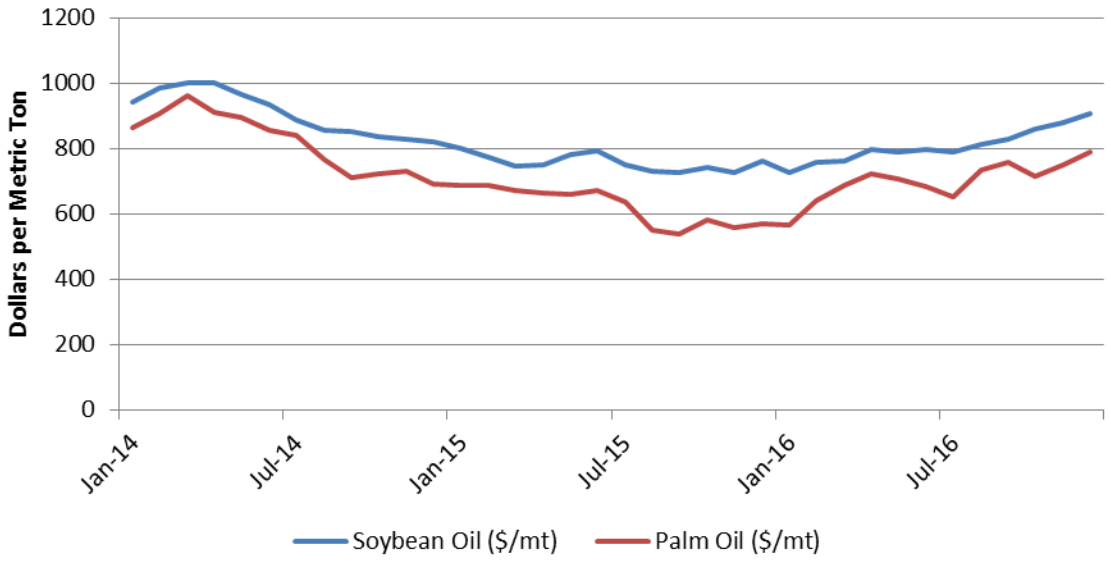
PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

The raw material input to biodiesel is feedstock, such as soybean oil, palm oil, tallow, rapeseed oil, vegetable oil, and canola oil; soybean oil is the largest feedstock for domestic and Argentine biodiesel and palm oil is the largest feedstock for Indonesian palm oil.[1] Most responding U.S. producers (15 of 24) and importers (8 of 13) reported that raw material costs fluctuated during 2014-16. Soybean oil is traded on the futures market. As shown in figure V-1, the price of soybean oil and palm oil declined from 2014 to the third quarter of 2015; soybean oil prices fell 23 percent from January 2014 to November 2015 and palm oil prices fell 38 percent from January 2014 to September 2015. Prices began to rise through 2016. Overall prices for soybean oil and palm oil declined 4 percent and 9 percent, respectively, during 2014-2016.[2] Raw material costs make up a substantial portion of COGS, accounting for between 87 percent and 89 percent of COGS during 2014-16.

Figure V-1
Biodiesel: Prices of soybean oil and palm oil, dollars per metric ton, 2014-16



Source: World Bank, *Global Economic Monitor Commodities*, accessed April 19, 2017.

[1] Petition, p. 8.
[2] Palm oil is not used in the United States to produce biodiesel.

Transportation costs to the U.S. market

Transportation costs for biodiesel shipped from subject countries to the United States were 5.0 percent for Argentina and 8.8 percent for Indonesia in 2016. These estimates were derived from official import data and represent the transportation and other charges on imports.[3]

U.S. inland transportation costs

Seven of 24 responding U.S. producers and 4 of 10 responding importers reported that they typically arrange transportation to their customers. Ten U.S. producers reported that their U.S. inland transportation costs ranged from 2 to 10 percent while three importers reported costs of 1 to 8 percent.

PRICING PRACTICES

Pricing methods

U.S. producers and importers reported using transaction-by-transaction negotiations, contracts, price lists, and other methods. As presented in table V-1, U.S. producers and importers sell primarily by transaction-by-transaction negotiations or contracts while importers primarily sell on a transaction-by-transaction basis.

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

Method	U.S. producers	Importers
Transaction-by-transaction	20	12
Contract	19	9
Set price list	2	1
Other	13	6
Responding firms	25	13

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

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

U.S. producers reported selling the vast majority of their biodiesel under short-term contracts while importers reported selling the majority of their biodiesel with spot sales in 2016

[3] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2016 and then dividing by the customs value based on the HTS subheading 3826.00.1000 and 3826.00.3000.

(table V-2). Almost no U.S. producers or importers reported using annual or long-term contracts for their biodiesel sales in 2016.

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

Type of sale	U.S. producers	Importers
Long-term contracts	0.0	0.0
Annual contracts	0.2	0.0
Short-term contracts	86.4	30.4
Spot sales	13.4	69.6
Total	100.0	100.0

Note.--Because of rounding, figures may not add to the totals shown.

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

Ten U.S. producers reported that their short-term contracts average 30 days and eleven reported 60 to 90 day short-term contracts. Three importers reported that their short-term contracts average 30 days and three reported 90-day short-term contracts. Most responding U.S. producers (16 of 24) and half of responding importers (4 of 8) reported that their prices are set based on a published price index. These indices include the OPIS heating oil index, NYMEX heating oil futures, New York Harbor ULSD futures, and OPIS RIN Average. At the staff conference, petitioners stated that the contract price is typically indexed to a published diesel price, commonly referred to as New York Harbor Ultralow Sulphur Diesel, or ULSD, but also referred to as the New York Mercantile Exchange, or NYMEX, heating oil price. The contract price may be expressed as a discount or a premium to NYMEX, depending on how the biodiesel is sold.[4] Most short-term contracts do not include price renegotiation or meet-or-release provisions, and fix both quantity and price.

Sales terms and discounts

U.S. producers and importers typically quote prices on an f.o.b. basis. Most producers (21 of 25) and all importers do not offer discounts. Most U.S. producers and importers reported net 10 days sales terms.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following biodiesel products shipped to unrelated U.S. customers as well as quantity and purchase cost data for biodiesel consumed internally (product 1 only) during January 2014-December 2016.

[4] Conference transcript, p. 174 (Stone). Petitioners provide a figure of the B100 NYH price discount to NYMEX published by ***. Petitioner's postconference brief, p. 34.

Product 1.—B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

Product 2.—B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), including RIN value when sold as 1.5 RINs per gallon.

Product 3.—B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), sold without RINs.

Twenty-three U.S. producers and eight importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[5] Pricing data reported by these firms accounted for approximately 97.6 percent of U.S. producers' shipments of product, 35.3 percent of U.S. shipments of subject imports from Argentina, and 32.7 percent of U.S. shipments of subject imports from Indonesia in 2016.

RINs and the blender's tax credit play an important role not only in demand for biodiesel, but also how biodiesel is sold. The value of a gallon of biodiesel is a function of the fuel, the RIN, and to what extent a blender's tax credit can be applied.[6] The Commission requested pricing products 1 and 2 with RINs, meaning the value of the RINs are included in the total price. Not only can a firm accumulate 1.5 RINs per gallon of biodiesel, RINs also have a monetary value that is determined by the market. There are also different classifications of RINs. The United States and Argentina primarily produce biodiesel with D4 RINs (because the input is soybean oil) while Indonesia produces biodiesel with D6 RINs (because the input is palm oil). D4 and D6 RINs have different monetary values. With respect to products 1 and 2, these different values are imbedded in the price data.[7]

The blender's tax credit adds another level of complexity to the price data. The tax credit, which applies to blended biodiesel at $1 per gallon of domestically produced biodiesel and imported biodiesel, was not in force in 2014 or 2015, but was retroactively applied to 2015 sales and in force in 2016. Firms selling biodiesel handled the uncertainty of the tax credit in 2015 in different ways, including sharing the tax credit 50/50 with the purchaser or taking on all of the risk that the credit might not be reinstated. If and when the credit is reinstated, the tax

[5] 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.

[6] Conference transcript, p. 209 (Levy).

[7] Conference transcript, p. 210 (Levy). Petitioners provided quarterly average prices for D4 and D6 RINs, and computed the discount associated with a D6 RIN as compared to a D4 RIN, per gallon of biodiesel. Petitioner's post-conference brief, p. 31 and exhibits 6 and 7. Indonesian respondents reported that the distinct regulatory treatment of Indonesian biodiesel, combined with its physical characteristics, render it less valuable than domestic or Argentine biodiesel, and that D6 RINs trade at a sharp discount to D4 RINs. They argued that the Commission "cannot ascribe significance to any appearance of underselling observed in the pricing of the Indonesian subject merchandise." Indonesian respondent's postconference brief, p. 21.

sharing agreement is already in the contract.[8] In addition, some states also offer tax incentives, such as Illinois, which offers a 6.25 percent sales and use tax exemption if there is at least 10 percent biodiesel in the fuel.[9] According to respondent Cargill, the quarterly average unit values for the pricing data are incorporating different market expectations related to the lapsed blender's tax credit during 2014 and 2015 and mask distortions related to pricing mechanisms that exist in the market for biodiesel.[10] Because of these complexities, staff believes that firms may have provided price data that reflects tax credits inconsistently based on different business practices.[11]

Price data for products 1-3 are presented in tables V-3 to V-5 and figures V-2 to V-4. Nonsubject country prices are presented in Appendix E.

[8] Conference transcript, p. 218 (Stone).

[9] Conference transcript, p. 31 (Whitney).

[10] Respondent Cargill's postconference brief, pp. 6-7.

[11] Most firms did not indicate how they treated the tax credit when reporting price data. Petitioners indicated that they did not include any tax credits in the pricing data. Staff telephone call with Myles Getlan, counsel to Petitioners, April 24, 2017. Producer *** stated that it applied the 2015 B99.9 tax credit to gallons sold. Producer *** stated that it "transfers RINs to the customer and does not directly receive monies for them." Producer *** stated that the values it reported do not include the federal tax credit. Importer *** did not include the tax credit in its price data, but did provide the values of the credit by product and by quarter. If the tax credit were added to the total value reported, the price of imports from Indonesia of product 1 would increase between *** percent for 2014 and between *** percent for 2015; the price of product 2 would increase between *** percent in 2015 and *** percent in 2016; the price of product 3 would increase between *** percent for 2014, between *** percent in 2015, and between *** percent in 2016.

Table V-3
Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 1,[1] and margins of underselling/(overselling), by quarters, January 2014-December 2016

Period	United States		Argentina			Indonesia		
	Price *(per gallon)*	Quantity *(gallons)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*
2014:								
Jan.-Mar.	3.43	88,219,709	--	0	--	--	0	--
Apr.-June	3.47	113,129,250	***	***	***	***	***	***
July-Sept.	3.57	129,523,925	--	0	--	***	***	***
Oct.-Dec.	3.06	98,221,993	--	0	--	***	***	***
2015:								
Jan.-Mar.	2.75	80,247,646	***	***	***	***	***	***
Apr.-June	3.03	118,277,586	***	***	***	***	***	***
July-Sept.	2.88	115,198,531	***	***	***	***	***	***
Oct.-Dec.	2.45	97,958,732	***	***	***	***	***	***
2016:								
Jan.-Mar.	2.64	83,852,210	--	0	--	--	0	--
Apr.-June	3.04	105,052,612	--	0	--	***	***	***
July-Sept.	3.08	95,149,938	***	***	***	***	***	***
Oct.-Dec.	3.12	92,017,903	***	***	***	***	***	***

[1] Product 1: B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Table V-4
Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 2,[1] and margins of underselling/(overselling), by quarters, January 2014-December 2016

	United States		Argentina			Indonesia		
Period	Price *(per gallon)*	Quantity *(gallons)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*
2014:								
Jan.-Mar.	3.46	65,899,192	***	***	***	--	0	--
Apr.-June	3.57	72,733,492	***	***	***	--	0	--
July-Sept.	3.58	90,987,912	***	***	***	--	0	--
Oct.-Dec.	3.06	133,588,714	***	***	***	--	0	--
2015:								
Jan.-Mar.	2.75	61,489,498	***	***	***	***	***	***
Apr.-June	2.93	113,636,503	***	***	***	***	***	***
July-Sept.	2.80	109,425,951	***	***	***	***	***	***
Oct.-Dec.	2.41	110,306,754	***	***	***	***	***	***
2016:								
Jan.-Mar.	2.09	117,411,827	***	***	***	--	0	--
Apr.-June	2.17	156,439,728	***	***	***	***	***	***
July-Sept.	2.30	179,363,783	***	***	***	***	***	***
Oct.-Dec.	2.42	188,356,940	***	***	***	--	0	--

[1] Product 2: B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Table V-5
Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 3,[1] and margins of underselling/(overselling), by quarters, January 2014-December 2016

	United States		Argentina			Indonesia		
Period	Price *(per gallon)*	Quantity *(gallons)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*	Price *(per gallon)*	Quantity *(gallons)*	Margin *(percent)*
2014:								
Jan.-Mar.	***	***	***	***	***	--	0	--
Apr.-June	2.66	39,914,485	***	***	***	***	***	***
July-Sept.	2.73	46,429,710	***	***	***	***	***	***
Oct.-Dec.	2.08	39,459,522	***	***	***	***	***	***
2015:								
Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	1.82	44,060,677	***	***	***	***	***	***
July-Sept.	1.51	59,028,223	***	***	***	***	***	***
Oct.-Dec.	1.52	45,671,091	***	***	***	***	***	***
2016:								
Jan.-Mar.	0.80	38,626,233	***	***	***	***	***	***
Apr.-June	1.15	65,187,312	***	***	***	***	***	***
July-Sept.	0.97	69,702,988	***	***	***	***	***	***
Oct.-Dec.	1.03	60,533,547	1.06	48,788,467	(3.5)	***	***	***

[1] Product 3: B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), sold without RINs.

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

Figure V-2
Biodiesel: Weighted-average prices and quantities of domestic and imported product 1, by quarters, January 2014-December 2016

* * * * * * *

Figure V-3
Biodiesel: Weighted-average prices and quantities of domestic and imported product 2, by quarters, January 2014-December 2016

* * * * * * *

Figure V-4
Biodiesel: Weighted-average prices and quantities of domestic and imported product 3, by quarters, January 2014-December 2016

* * * * * * *

Import purchase cost data

One importer, ***, provided usable direct import purchase cost data for imports for its own use of product 1, although it did not report cost data for all quarters. Cost data reported by this firm accounted for approximately *** percent of imports from Argentina and *** percent of imports from Indonesia in 2016. Import purchase cost data is presented in table V-6 and figure V-5.

In addition to the import purchase cost data, *** identified inspection fees and quality assurance (QAP) RIN generation costs but did not estimate a share of the cost. It reported that it compares costs to other U.S. importers and U.S. producers. *** described efficient delivery of supply to coastal regions as the benefit of importing biodiesel directly but did not estimate the margin saved by directly importing biodiesel instead of purchasing from a U.S. importer.

Table V-6
Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid costs of imported product 1,[1] by quarters, January 2014-December 2016

Period	United States		Argentina (cost)		Indonesia (cost)	
	Price *(per gallon)*	Quantity *(gallons)*	Price *(per gallon)*	Quantity *(gallons)*	Price *(per gallon)*	Quantity *(gallons)*
2014:						
Jan.-Mar.	3.43	88,219,709	--	0	--	0
Apr.-June	3.47	113,129,250	--	0	--	0
July-Sept.	3.57	129,523,925	--	0	--	0
Oct.-Dec.	3.06	98,221,993	***	***	--	0
2015:						
Jan.-Mar.	2.75	80,247,646	--	0	--	0
Apr.-June	3.03	118,277,586	--	0	--	0
July-Sept.	2.88	115,198,531	***	***	--	0
Oct.-Dec.	2.45	97,958,732	***	***	--	0
2016:						
Jan.-Mar.	2.64	83,852,210	***	***	--	0
Apr.-June	3.04	105,052,612	***	***	***	***
July-Sept.	3.08	95,149,938	***	***	***	***
Oct.-Dec.	3.12	92,017,903	***	***	***	***

[1] Product 1: B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Figure V-5
Biodiesel: Weighted-average prices and quantities of domestic and landed duty paid costs of imported product 1, by quarters, January 2014-December 2016

* * * * * * *

Price trends

In general, prices decreased during January 2014-December 2016. Table V-7 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases ranged from *** to *** percent during January 2014-December 2016 while import price decreases ranged from *** to *** percent for imports from Argentina and ranged from *** to *** percent for imports from Indonesia.

Table V-7
Biodiesel: Summary of weighted-average f.o.b. prices for products 1-3 from the United States, Argentina, and Indonesia

* * * * * * *

Price comparisons

As shown in table V-8, prices for biodiesel imported from Argentina were below those for U.S.-produced product in 20 of 31 instances (*** gallons); margins of underselling ranged from *** to *** percent, with an average of *** percent. In the remaining 11 instances (*** million gallons), prices for biodiesel from Argentina were between *** and *** percent above prices for the domestic product, with an average of *** percent. Prices for biodiesel imported from Indonesia were below those for U.S.-produced product in 26 of 27 instances (*** gallons); margins of underselling ranged from *** percent to *** percent, with an average of *** percent. In the remaining instance (*** gallons), prices for biodiesel from Indonesia were *** percent above prices for the domestic product.

Table V-8
Biodiesel: Instances of underselling/overselling and the range and average of margins, by country, January 2014-December 2016

Source	Underselling				
	Number of quarters	Quantity[1] (gallons)	Average margin (percent)	Margin range (percent)	
				Min	Max
Argentina	20	***	***	***	***
Indonesia	26	***	***	***	***
Total	46	328,803,940	14.5	0.2	76.1
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (gallons)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Argentina	11	***	***	***	***
Indonesia	1	***	***	***	***
Total	12	103,640,927	(14.5)	(0.0)	(74.0)

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

Note: Importer *** provided both price and applicable blender's tax credit data of its sales of imports from ***. Staff used the reported price data for the above calculations. If, however, the blender's tax credit reported by *** is included in the price data, there would be ***.

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

LOST SALES AND LOST REVENUE

The Commission requested that U.S. producers of biodiesel report purchasers where they experienced instances of lost sales or revenue due to competition from imports of biodiesel from Argentina and Indonesia during January 2014-December 2016. Of the 24 responding U.S. producers, 22 reported that they had to reduce prices and 3 reported that they had to roll back announced price increases, and 22 firms reported that they had lost sales. Eight U.S. producers submitted lost sales and lost revenue allegations and identified 26 firms where they lost sales or revenue (8 consisting of lost revenue allegations and 18 consisting of both types of allegations). All allegations provided referenced subject product from Argentina, with 5 allegations also including Indonesia. All allegations specified the allegation timing as 2014-16, except one that reported 2015 and 2016. All allegations were by individual sale of biodiesel.

Staff contacted 26 purchasers and received responses from 13 purchasers. Responding purchasers reported purchasing *** gallons of biodiesel during January 2014-December 2016 (table V-9).

Table V-9
Biodiesel: Purchasers' responses to purchasing patterns

* * * * * * *

During 2016, purchasers purchased 49.8 percent from U.S. producers, 26.3 percent from Argentina, 9.3 percent from Indonesia, 5.4 percent from nonsubject countries, and 9.1 percent from "unknown source" countries.[12] Of the responding purchasers, 3 reported decreasing purchases from domestic producers, 7 reported increasing purchases, 3 reported no change, and none reported fluctuating purchases; all responding purchasers reported purchases of domestic product. Explanations for increasing purchases of domestic product included an increase in the RVO, added terminals, increased trading activity, and installed biodiesel blending equipment. Explanations for decreasing purchases of domestic product included less demand, competitively priced imports, and poor transportation and logistics in the Northeast. Responding U.S. purchasers identified spot sales and short-term contracts as the primary methods they use to purchase biodiesel.

Of the 13 responding purchasers, 8 reported that they had purchased imported biodiesel from subject countries instead of U.S.-produced product since 2014; 7 reported that they had purchased imported biodiesel from Argentina and 5 reported that they had purchased imported biodiesel from Indonesia instead of U.S.-produced product. Seven of nine purchasers reported that subject import prices were lower than U.S.-produced product; 2 of these purchasers reported that price was a primary reason for the decision to purchase imported product from Argentina and 2 reported that price was a primary reason for the decision to purchase imported product from Indonesia. The reported estimated purchases these firms purchased from subject imports sources rather than domestic sources were about *** gallons (table V-10). The remaining three purchasers indicated that price was not a primary reason for purchasing subject product instead of U.S.-produced product, identifying availability, logistics, and reliable supply as non-price reasons for purchasing imported rather than U.S.-produced product.

Table V-10
Biodiesel: Purchasers' responses to purchasing subject imports instead of domestic product

* * * * * * *

Of the 13 responding purchasers, 4 reported that U.S. producers had reduced prices in order to compete with lower-priced imports from subject countries (table V-11; 8 reported that they did not know). The reported estimated price reduction ranged from 5 to 10 percent; purchaser *** estimated a 25 percent to 45 percent reduction with respect to Argentina. In describing the price reductions, purchasers indicated that increased imports caused a reduction in RIN prices, and that the cost of biodiesel feedstock from imported gallons is lower.

Table V-11
Biodiesel: Purchasers' responses to U.S. producer price reductions

* * * * * * *

[12] Of the 13 responding purchasers, 5 purchasers indicated that they did not know the source of the biodiesel they purchased.

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics.

Purchaser *** stated that for Argentina, it did not import a lot compared to the rest of the industry in 2014, 2015, or 2016. It also stated that it did not see Argentine product consistently priced lower than U.S. product when speaking directly to producers however overall import statistics and market activity appear to suggest that other traders may have speculatively over-bought in the end 2015 and early 2016 in hopes of a much larger RFS mandate from EPA (creating a need for more gallons). *** stated that oversupply in late 2016 created logistical back log, causing much lower prices on coastlines, although it is very difficult to determine how it impacted domestic producers or if it was avoidable by the industry as a whole. It also stated that with respect to Indonesia and other Asian biodiesel, it noticed fairly reduced pricing in the first quarter of most years to "beat" U.S.-product in the summer months. Because biodiesel from Asia has poor cold-flow properties, it must be brought into the United States mostly in the summer months and is only bought if reduced prices are offered.

Purchaser *** stated that like all energy commodities, such as crude petroleum and ultra-low sulphur diesel), biodiesel has dynamic and volatile prices and availability, and that logistics usually outweigh price when deciding what to purchase. It continued that in 2016, it purchased *** gallons in the United States for which it cannot confirm the country of production, but notes that some unknown percentage was imported.

Purchaser *** stated that the largest component of its biodiesel supply origin is unknown because the majority of supply into the Northeast comes through the New York Harbor, and it is aware that most supply (estimated 80 percent) via the New York Harbor is imported. It continued that it is purchasing from domestic producers, traders, and importers, but that domestic producers have been and continue to be some of the largest suppliers of Argentine biodiesel in the Northeast, which further muddles identifying the point of origin for the product. *** also stated that imported volume delivered by water is less expensive regardless of the country of origin and that domestic biodiesel delivered by rail to New England often trades above the cost of distillate fuel which would eliminate market interest in purchasing "bio blended" fuel. Lastly, *** reported that imported fuel is critical to meeting the regional requirements in the Northeast and that the long supply chain from Midwestern producers, fragmented Northeast rail infrastructure, and the lack of regional production limits domestic supply in its region of the country. It stated that imports fill an important void that would otherwise be unsupplied and that the supply from Argentina is critical to meeting Northeast demand, given the rise in consumer demand and mandates, such as the New York City heating oil.

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

BACKGROUND

Twenty-four U.S. producers provided useable financial data, the same number that provided information in the trade section of the Commission's questionnaire.[1] Firms were requested to provide data on a calendar year basis and the trade and financial sections of the Commission's questionnaire reconciled to within rounding errors. Four firms reported transfers to related parties, including producers of petroleum diesel; seven firms reported internal consumption of biodiesel for the production of other products, including blending at their own fuel stations. One firm (***) began operations in 2015 while several others expanded operations between 2014 and 2016.[2] This industry is concentrated, with the leading four firms and eight firms accounting for nearly 54 percent and 75 percent, respectively, of reported sales by quantity in 2016.

As the largest U.S. producer stated "the biomass-based diesel industry relies substantially on federal programs requiring the consumption of biofuels. Biomass-based diesel has historically been more expensive to produce than petroleum-based diesel, and governmental programs support a market for biomass-based diesel that otherwise might not exist."[3] Primary among government programs is the Renewable Fuel Standard ("RFS") program, under which the U.S. Environmental Protection Agency ("EPA") promulgated regulations that require the consumption of biodiesel fuel at specified volumes on an annual basis, although the EPA has waiver authority to lower the floor to targets set.[4] [5] While the RFS program has

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[1] See discussion of coverage in Part I of this report. One firm, ***.

[2] The ***. REG purchased several facilities that had been shut down by their owners. REG's 2016 Form 10-K indicates that it commenced operations at plants in Geismar, Louisiana; Grays Harbor, Washington; and Madison, Wisconsin during 2014-16. These plants have a nameplate capacity of 195 million gallons per year. REG, 2016 Form 10-K, p. 3.

[3] REG, 2016 Form 10-K, p. 11. The firm uses the term biomass-based diesel to distinguish it from petroleum diesel. Biomass-based diesel is the same as biodiesel.

[4] The RFS program was designed to implement changes made by Congress to the Clean Air Act in 2005 and expanded in 2007. The RFS program is administered by the EPA in consultation with the U.S. Department of Agriculture and the U.S. Department of Energy. It is a national policy that requires a certain volume of renewable fuel to replace or reduce the quantity of petroleum-based transportation fuel, heating oil, or jet fuel. Biodiesel is one of the four renewable fuel categories. Obligated parties under the RFS program are refiners or importers of gasoline or diesel fuel. Compliance is achieved by blending renewable fuels into transportation fuel or by obtaining credits, called Renewable Identification Numbers ("RINs"), to meet EPA-specified Renewable Volume Obligation ("RVO"), which is established yearly. The minimum consumption volume was 1.28 billion gallons in 2013 and increased to 1.90 billion gallons in 2016. The EPA set the minimum annual consumption volume at 2.00 billion gallons for 2017 and 2.10 billion gallons for 2018.

The EPA created the RINs system to track renewable fuel production and compliance with the renewable fuel standard. EPA registered producers of renewable fuel may generate RINs for each

(*continued*...)

supported the consumption of biodiesel, Federal and state tax incentives have aided the industry.[6] At the national level, there is the federal biodiesel mixture excise tax credit, known as the Biodiesel Tax Credit or blenders' tax credit ("BTC"). Under the BTC, the entity to first blend pure biodiesel (B100) with petroleum based diesel fuel received a $1.00 per-gallon refundable tax credit.[7] The BTC could be used to reduce excise tax liability or could be exchanged for cash.[8]

(…*continued*)
gallon of renewable fuel they produce, which is generally 1.5 RINs for each gallon of biodiesel produced. RINs are ultimately used by obligated parties to demonstrate compliance with the RVO obligations under RFS2 (RFS2 refers to the fuel program regulations adopted in mid-2010). An obligated party can obtain RINs buying renewable fuels with RINs attached, buying RINs that have been separated, or producing renewable fuels themselves. Obligated parties may carry over up to 20 percent unused RINs between compliance years, but RINs expire in the year following generation; they may also carry a compliance deficit into the following year but that deficit must be made up in the following year. RINs are separated (made independent) when the obligated party owns the biodiesel; when the biodiesel is blended to below 80 percent with petroleum diesel (e.g., B80); when the biodiesel is blended with petroleum diesel for transportation uses (e.g., B5, B10, etc.); or when the biodiesel is exported. REG, 2016 Form 10-K, p. 6.

[5] Biodiesel can be sold with associated RINs attached or RINs may be separated from the gallons of renewable fuel they represent, and once separated they may be sold as a separate commodity, as noted earlier. All RIN activity under RFS2 must be entered into the EPA's moderated transaction system, which tracks RIN generation, transfer, and retirement. RINs are retired when used for compliance with the RFS2 requirements. According to REG's public statements, the value of RINs is significant to the price of biodiesel: "In 2015, RIN prices as a percentage contribution to the average B100 spot price, as reported by OPIS, fluctuated significantly throughout the year and range from a low of $0.58 per gallon, or 23%, in September to a high of $1.55 per gallon, or 53%, in January. In 2016, RIN prices as a percentage contribution to the average B100 spot price, as reported by OPIS, fluctuated significantly throughout the year and January. In 2016, RIN prices as a percentage contribution to the average B100 spot price, as reported by OPIS range from a low of $1.05 per gallon, or 37%, in September to a high of $1.89 per gallon, or 54%, in January." REG, 2016 Form 10-K, pp. 6-7.

[6] "Prior to the 2010 implementation of RFS2, the biodiesel industry relied principally on tax incentives to make the price of biodiesel more cost competitive with the price of petroleum-based diesel fuel to the end user." REG 2016 Form 10-K, p. 12.

[7] "The BTC became effective January 1, 2005 and then lapsed January 1, 2010 before being reinstated retroactively on December 17, 2010. The BTC again lapsed as of December 31, 2011 and on January 2, 2013, it was again reinstated, retroactively for 2012 and through December 31, 2013. The BTC lapsed again on December 31, 2013 and was retroactively reinstated for 2014 on December 19, 2014. On December 18, 2015, the BTC was retroactively reinstated for 2015 and was in effect until December 31, 2016. The BTC is best thought of as an incentive shared across the entire value chain through routine, daily trading and negotiation. The BTC lapsed again on January 1, 2017, but is generally expected to return even though timing and form of the incentive, if reinstated, are uncertain." REG, 2016 Form 10-K, p. 7.

[8] Parties indicated that the BTC influenced sales values. For example, "many obligated parties and discretionary blenders have shifted responsibility for claiming the credit to biodiesel producers, who then share the value of the credit with their customers through a lower price." Conference transcript, p.
(*continued*...)

State programs also provide tax credits and other incentives that encourage the use of biodiesel; approximately 40 states currently have such programs.[9]

OPERATIONS ON BIODIESEL

Table VI-1 presents aggregated data on U.S. producers' operations in relation to biodiesel over the full yearly periods of 2014 through 2016. Table VI-1 presents data side-by-side for sales value without and with independent RIN values. In both cases, the BTC and state and municipal tax credits are presented below operating income, which is how the data were gathered in the questionnaire. Table VI-2 presents changes in average unit values between years.

(…*continued*)
166 (Steckel). "The final price of biodiesel is influenced primarily by three factors. First, the price of the fuel itself. Second, biodiesel price may include the market value of the RIN, and third, biodiesel price may reflect the value of the federal blender's tax credit or some portion of it." Conference transcript, p. 175 (Stone). The spokesman for Louis Dreyfus stated that when the tax credit exists, producers have generally sold biodiesel as B99 and because the cost of blending is inconsequential, the producer implicitly includes the revenue from the credit in his sales decision; when the tax credit lapsed, a share of the eventual tax credit was split with the consumer, depending on the extent to which the parties were willing to accept the legislative risk. Conference transcript, p. 39 (Doyle). It is not clear the extent to which or for which periods domestic producers offset prices by sharing the BTC with their customers or whether that was in the form of a price reduction or subsequent credit. Hence, staff has classified the BTC in other income instead of adding the BTC to net sales value. The effect on net income is the same. For example, ***. According to REG's public report, "historically sales have increased shortly before the BTC lapses and then decreased shortly thereafter. We believe reduced demand in the first quarters of 2014 and 2015 also resulted from the lapsing of the BTC at the end of 2013 and 2014, respectively. Similarly, we believe that the lapsing of the BTC on December 31, 2016 caused an acceleration of revenues in the fourth quarter of 2016, which is likely to result in a decline in demand during the first quarter of 2017." REG, 2016 Form 10-K, p. 12. In its regulatory filings REG includes the BTC in its sales revenues as it does separated RINs. REG, 2016 Form 10-K, p. 43.

[9] REG, 2016 Form 10-K, p. 7. Some data on state and local incentives are included in the other income section of table VI-1. A matrix of state policies may be found at the Alternative Fuels Data Center of the U.S. Department of Energy, http://www.afdc.energy.gov/laws/matrix?sort_by=tech.

Table VI-1
Biodiesel: Results of operations of U.S. producers, 2014-16

Item	Calendar year			Calendar year		
	2014	2015	2016	2014	2015	2016
	Not including RIN values			Including RIN values		
	Quantity (1,000 gallons)			Quantity (1,000 gallons)		
Commercial sales	***	***	***	***	***	***
Internal consumption[1]	***	***	***	***	***	***
Transfers to related firms[2]	***	***	***	***	***	***
Total net sales	1,038,872	1,051,285	1,397,658	1,038,872	1,051,285	1,397,658
	Value (1,000 dollars)			Value (1,000 dollars)		
Commercial sales	***	***	***	***	***	***
Internal consumption[1]	***	***	***	***	***	***
Transfers to related firms[2]	***	***	***	***	***	***
Independent RIN sales	0	0	0	135,723	200,427	326,412
Total net sales	3,365,327	2,706,141	3,106,706	3,501,050	2,906,568	3,433,118
Cost of goods sold: Raw materials	3,166,134	2,525,934	3,406,644	3,166,134	2,525,934	3,406,644
Direct labor	57,140	62,168	73,351	57,140	62,168	73,351
Other factory costs	332,463	329,097	425,196	332,463	329,097	425,196
Less: By-product revenue[3]	(122,323)	(79,549)	(71,574)	(122,323)	(79,549)	(71,574)
Total COGS	3,433,414	2,837,650	3,833,617	3,433,414	2,837,650	3,833,617
Gross profit or (loss)	(68,087)	(131,509)	(726,911)	67,636	68,918	(400,499)
SG&A expense	147,410	160,509	174,109	147,410	160,509	174,109
Operating income or (loss)	(215,497)	(292,018)	(901,020)	(79,774)	(91,591)	(574,608)
Interest expense	18,162	12,798	17,624	18,162	12,798	17,624
All other expenses	66,761	121,542	95,437	66,761	121,542	95,437
Federal biodiesel tax credit (BTC)	367,385	430,626	970,681	367,385	430,626	970,681
All other income[4]	89,307	53,522	48,909	89,307	53,522	48,909
Net income or (loss)	156,272	57,790	5,509	291,995	258,217	331,921
Depreciation/amortization	58,487	63,557	71,010	58,487	63,557	71,010
Cash flow	214,759	121,347	76,519	350,482	321,774	402,931
	Ratio to total net sales (percent)			Ratio to total net sales (percent)		
Cost of goods sold.-- Raw materials	94.1	93.3	109.7	90.4	86.9	99.2
Direct labor	1.7	2.3	2.4	1.6	2.1	2.1
Other factory costs	9.9	12.2	13.7	9.5	11.3	12.4
Less: By-product revenue	(3.6)	(2.9)	(2.3)	(3.5)	(2.7)	(2.1)
Total COGS	102.0	104.9	123.4	98.1	97.6	111.7
Gross profit	(2.0)	(4.9)	(23.4)	1.9	2.4	(11.7)
SG&A expense	4.4	5.9	5.6	4.2	5.5	5.1
Operating income or (loss)	(6.4)	(10.8)	(29.0)	(2.3)	(3.2)	(16.7)
Net income or (loss)	4.6	2.1	0.2	8.3	8.9	9.7

Table continued on next page.

Table VI-1 -- Continued
Biodiesel: Results of operations of U.S. producers, 2014-16

Item	Calendar year			Calendar year		
	2014	2015	2016	2014	2015	2016
	Not including RIN values			Including RIN values		
	Ratio to total COGS (percent)			Ratio to total COGS (percent)		
Cost of goods sold before by-product offset						
Raw materials	89.0	86.6	87.2	89.0	86.6	87.2
Direct labor	1.6	2.1	1.9	1.6	2.1	1.9
Other factory costs	9.4	11.3	10.9	9.4	11.3	10.9
Total COGS	100.0	100.0	100.0	100.0	100.0	100.0
	Unit value (dollars per gallon)			Unit value (dollars per gallon)		
Commercial sales	***	***	***	***	***	***
Internal consumption	***	***	***	***	***	***
Transfers to related firms	***	***	***	***	***	***
Total net sales	3.24	2.57	2.22	3.24	2.57	2.22
RIN values	---	---	---	0.13	0.19	0.23
Total net sales, including RIN values	3.24	2.57	2.22	3.37	2.76	2.46
Cost of goods sold:						
Raw materials	3.05	2.40	2.44	3.05	2.40	2.44
Direct labor	0.06	0.06	0.05	0.06	0.06	0.05
Other factory costs	0.32	0.31	0.30	0.32	0.31	0.30
Less: By-product revenue	(0.12)	(0.08)	(0.05)	(0.12)	(0.08)	(0.05)
Total COGS	3.30	2.70	2.74	3.30	2.70	2.74
Gross profit	(0.07)	(0.13)	(0.52)	0.07	0.07	(0.29)
SG&A expense	0.14	0.15	0.12	0.14	0.15	0.12
Operating income or (loss)	(0.21)	(0.28)	(0.64)	(0.08)	(0.09)	(0.41)
Net income or (loss)	0.15	0.05	0.00	0.28	0.25	0.24
	Number of firms reporting			Number of firms reporting		
Operating losses	16	18	19	14	15	17
Net losses	8	10	12	4	5	6
Data	23	24	24	23	24	24

[1] Reported data accounted for mostly by ***.
[2] Data reported by ***.
[3] Eighteen firms reported data for by-product revenues, which represents the sale or consumption of glycerin, fatty acids, and black esters, in each of the three yearly periods. These are mostly included in net sales revenue in their records (the Commission's questionnaire requested that reporting firms include it as an offset to COGS).
[4] Includes state and municipal tax credits for biodiesel sales and other items. Also, in these investigations several firms classified the net revenues from by-products and co-products in other income.

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

Table VI-2
Biodiesel: Changes in average unit values for all firms, between 2014-16

Item	Between Calendar years			Between Calendar years		
	2014-16	2014-15	2015-16	2014-16	2014-15	2015-16
	Not including RIN values			Including RIN values		
	Changes in unit values (dollars per gallon)			Changes in Unit values (dollars per gallon)		
Commercial sales	(1.02)	(0.68)	(0.35)	(1.02)	(0.68)	(0.35)
Internal consumption	(1.13)	(0.86)	(0.27)	(1.13)	(0.86)	(0.27)
Transfers to related firms	(0.78)	(0.44)	(0.33)	(0.78)	(0.44)	(0.33)
Total net sales before adding RIN values	(1.02)	(0.67)	(0.35)	(1.02)	(0.67)	(0.35)
RIN values	---	---	---	0.10	0.06	0.04
Total net sales	(1.02)	(0.67)	(0.35)	(0.91)	(0.61)	(0.31)
Cost of goods sold.-- Raw materials	(0.61)	(0.64)	0.03	(0.61)	(0.64)	0.03
Direct labor	(0.00)	0.00	(0.01)	(0.00)	0.00	(0.01)
Other factory costs	(0.02)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Less: By-product revenue	0.07	0.04	0.02	0.07	0.04	0.02
Average COGS	(0.56)	(0.61)	0.04	(0.56)	(0.61)	0.04
Gross profit	(0.45)	(0.06)	(0.39)	(0.35)	0.00	(0.35)
SG&A expense	(0.02)	0.01	(0.03)	(0.02)	0.01	(0.03)
Operating income or (loss)	(0.44)	(0.07)	(0.37)	(0.33)	(0.01)	(0.32)
Net income or (loss)	(0.15)	(0.10)	(0.05)	(0.04)	(0.04)	(0.01)

Source: Calculated from the data in table VI-1.

Table VI-3 presents selected sales and cost data reported by the responding U.S. producers of biodiesel. The eight largest firms are presented individually, the other firms are aggregated. As previously stated, these eight firms accounted for nearly 75 percent of reported net sales quantity in 2016. Similar to the presentation in tables VI-1 and VI-2, the data with and without RIN values are presented side-by-side.

Table VI-3
Biodiesel: Results of operations of U.S. producers, by firm, 2014-16

* * * * * * *

Total net sales

Tables VI-1, VI-2, and VI-3 show sales of different types of biodiesel (some of which qualify for the blenders' tax credit) and values without and with RINs. Biodiesel is sometimes sold with RINs or without RINs, and the value of RINs may vary depending upon the current status of the government mandate.[10] As described by the data in these tables, total sales quantity rose between 2014 and 2016; total sales value declined irregularly between the full years but increased from 2015 to 2016. The average unit sales value with and without RINs fell from 2014 to 2016. The value of an independent RIN sale added $0.13 per gallon of biodiesel in 2014, rising to $0.23 per gallon in 2016. As noted earlier, the value of the blenders' tax credit (BTC) is not included in sales and is below the operating income line. At the staff conference parties were asked about including RINs and the BTC in sales and they differed on their responses.[11]

Operating costs and expenses

Biodiesel has traditionally been marketed primarily as an additive or alternative to petroleum-based diesel fuel, and, as a result, biodiesel prices have been influenced by the price of petroleum-based diesel fuel, adjusted for government incentives supporting renewable fuels, rather than biomass based diesel production costs.[12] Nonetheless, raw material costs are substantial in this industry. Feedstock costs are volatile; they include virgin vegetable oils (including soybean oil and canola) and what are described as lower cost feedstocks like inedible animal fat (such as beef tallow, choice white grease, and poultry fat derived from livestock), inedible corn oil, and used cooking oil. As depicted by the data in table VI-1, raw material costs increased in dollar terms 2014 to 2016 whether or not by-product revenues are deducted. Raw material costs as a share of total COGS declined somewhat between 2014 and 2016 (table VI-1),

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[10] Conference transcript, pp. 24-25 (Whitney). One U.S. producer responded to a question why the firm's sales value appeared low on a per-unit basis (***) and stated that the firm sells only B99 without RINs based on a discount to NYMEX {New York Mercantile Exchange}. Email from *** to staff, April 24, 2017, filed by Cassidy Levy.

[11] Mr. Doyle (Louis Dreyfus) contrasted sales of B99 in 2016 when the BTC was effective with those in 2015 when there was no credit and stated that the 2016 BTC was implicit in the sales price. Sales prices may have been greater in 2015 when the BTC was not in effect but may have been shared to an extent with the purchaser depending on the seller' risk averseness. Mr. Doyle further stated that sellers do include the BTC in the sales price. Conference transcript, p. 81 and 119-120 (Doyle). Also, conference transcript, p. 120 (Whitney, referring to the spread in prices between B100 and B99). Mr. Durling (counsel to Carbio) also stated that the nature of the BTC differed from other tax credits in that it could be cashed in or used as a credit against an excise tax liability and should be viewed as a revenue stream. Conference transcript, p. 81 (Durling). Respondents advocated including sales of independent RINs and the value of tax credits with sales of biodiesel to allow the Commission to analyze that the "full revenue stream." Carbio's postconference brief, p. 27 (analysis of price cost squeeze).

[12] REG, 2016 Form 10-K, p. 13.

and the ratio of raw materials to total net sales increased irregularly from 2014 to 2016. The decrease in average unit value of raw material costs was less than the drop in the average unit value of total net sales

By-products, consisting of the sale of glycerine and fatty acids and other products produced during the course of producing biodiesel are not insubstantial in this industry, representing 2.3 percent to 3.6 percent of total net sales (not including RINs). As shown in table VI-1, by-product revenues decreased from $122.3 million in 2014 to $71.6 million in 2016. [13]

Other factory costs constituted the second greatest component of total COGS (table VI-1). These costs steadily increased from 2014 to 2016 (by $92.7 million, equivalent to 27.9 percent). Other factory costs increased when expressed as a ratio to total net sales but were relatively flat (declining by 2 cents per gallon) on a per-unit basis between 2014 and 2016. Data by firm was mixed. Direct labor costs also increased from 2014 to 2016 (by $16.2 million, equivalent to 28.4 percent) and accounted for 1.6 percent to 2.1 percent of total COGS during the period, and between 1.7 percent and 2.4 percent of total net sales (not including RINs).

SG&A expenses are low relative to raw materials and other factory costs, at approximately 4.4 to 5.9 percent of sales (not including RINs). Between 2014 and 2016, SG&A expenses increased on a dollar basis (by $26.7 million, 18.1 percent), as a share of total net sales, but declined on a per-unit basis (table VI-1).

Shown in table VI-1 below the operating income line are interest expense, other expense, the Federal BTC, and other income. Between 2014 and 2016: Interest expense decreased from approximately $18.2 million to $17.6 million, other expenses (for items such as impairments to plant and equipment) rose irregularly from $66.8 million to $95.4 million; the BTC increased from $367.4 million to $970.7 million; and the category of all other income (including items such as state and local tax credits and co-product revenues) declined from $89.3 million to $48.9 million. The net amount of the four items was positive and offset operating losses.

Profitability

As may be seen from the data in table VI-1, the biodiesel tax credit offsets gross losses and operating losses. Net income is increased more after including RINs in total net sales. Cash

[13] By-products are either sold or consumed. If consumed there is a “revenue” recognized which offsets the cost that otherwise would be incurred (e.g., methanol used in the transesterification reaction) as a product produced in the course of producing biodiesel. If by-products are sold, then the net revenue is recognized. In either case, the revenue or cost offset is recognized in the period in which it is incurred. The Commission’s questionnaire asked firms where they normally classified by-product revenue. Of the reported $122.3 million in byproduct revenues reported in 2014, 88 percent was classified in net sales value while of the $71.6 million in 2016, 78 percent was included in net sales. In both years most of the remainder was included in other income. U.S. producers’ questionnaire responses, section III-9b. There were several instances of firms categorizing glycerine products not as by-products but as co-products; these firms either did not report the sales or classified the sales as other income.

flow (net income plus depreciation charges) changed with net income and is greater when RINs are added to net sales. While a majority of firms reported operating losses in each of the three full yearly periods, a smaller number reported net losses.[14]

Variance analysis

A variance analysis for the operations of U.S. producers of biodiesel is presented in table VI-4.[15] The information for this variance analysis is derived from table VI-1. A variance analysis is a method to assess the changes in profitability from period to period by measuring the impact of changes in the relationships between price, cost, and volume. A calculation is made of the impact of each factor by varying only that factor while holding all other factors constant. The components of net sales variances are either favorable (positive), resulting in an increase in net sales and profitability or unfavorable (negative), resulting in the opposite. As the data depict for sales without RINs, operating losses increased and net income fell between 2014 and 2016, attributable mostly to an unfavorable price variance (unit prices fell) that offset a favorable net cost/expense variance (unit costs and expenses decreased). As the data show including RINs results in a smaller, but still negative change, in operating losses, which are still attributable to an unfavorable price variance outweighing a favorable net cost/expense variance. When considering the effect of the BTC, the net income variance is negative (net income declines) in each of the yearly comparisons in the data not including RINs but is positive (net income increases) for two yearly comparisons in the data including RINs.

[14] Respondents generally stated their belief that the Commission should focus on net income and cash flow and give due weight to the fact that questionnaire data included the BTC below the operating income line. Conference transcript, pp. 82 and 127 (Szamosszegi). Cargill's postconference brief, pp. 4-6 and exh. 2 ***). Petitioners stated their belief that independent RIN sales should not be included in sales, and that the BTC should be a weighted average of the three years applied to each year for analysis of net income (petitioners' term was "normalized"). Petitioners' postconference brief, p. 41 and answers to questions from Commission staff, p. 14.

[15] The Commission's variance analysis is calculated in three parts: Sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expense 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. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances. The overall volume component of the variance analysis is generally small.

Table VI-4
Biodiesel: Variance analysis on the operations of U.S. producers, 2014-16

Item	Between Calendar years			Between Calendar years		
	2014-16	2014-15	2015-16	2014-16	2014-15	2015-16
	Not including RINs Value			Including RINs values		
Total net sales: Price variance	(1,420,874)	(699,397)	(491,043)	(1,277,059)	(636,314)	(431,094)
Volume variance	1,162,253	40,211	891,608	1,209,127	41,832	957,644
Net sales variance	(258,621)	(659,186)	400,565	(67,932)	(594,482)	526,550
COGS: Cost variance	785,565	636,788	(61,030)	785,565	636,788	(61,030)
Volume variance	(1,185,768)	(41,024)	(934,937)	(1,185,768)	(41,024)	(934,937)
COGS variance	(400,203)	595,764	(995,967)	(400,203)	595,764	(995,967)
Gross profit variance	(658,824)	(63,422)	(595,402)	(468,135)	1,282	(469,417)
SG&A expenses: Cost/expense variance	24,211	(11,338)	39,284	24,211	(11,338)	39,284
Volume variance	(50,910)	(1,761)	(52,884)	(50,910)	(1,761)	(52,884)
Total SG&A expense variance	(26,699)	(13,099)	(13,600)	(26,699)	(13,099)	(13,600)
Operating income variance	(685,523)	(76,521)	(609,002)	(494,834)	(11,817)	(483,017)
Summarized:: Price variance	(1,420,874)	(699,397)	(491,043)	(1,277,059)	(636,314)	(431,094)
Net cost/expense variance	809,775	625,451	(21,746)	809,775	625,451	(21,746)
Net volume variance	(74,424)	(2,575)	(96,213)	(27,551)	(953)	(30,177)
Financial expenses: Cost/expense variance	406,365	(26,403)	441,468	406,365	(26,403)	441,468
Volume variance	128,395	4,442	115,253	128,395	4,442	115,253
Total SG&A expense variance	534,760	(21,961)	556,721	534,760	(21,961)	556,721
Net income variance	(150,763)	(98,482)	(52,281)	39,926	(33,778)	73,704
Summarized: Price variance	(1,420,874)	(699,397)	(491,043)	(1,277,059)	(636,314)	(431,094)
Net cost/expense variance	1,216,141	599,048	419,722	1,216,141	599,048	419,722
Net volume variance	53,970	1,867	19,040	100,844	3,489	85,076

Note.—These data are derived from the data in table VI-1. Unfavorable variances are shown in parentheses, all others are favorable.

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

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

In accounting terms, capital expenditures increase the value of specific plant and equipment and total assets, while charges for depreciation and amortization (in the case of intangible assets), impairments, and divestitures (or retirement or abandonment of property) decrease the value of assets. Capital expenditures are made and research and development ("R&D") expenses are incurred to achieve improvements in equipment and the quality of products produced or reduce operating costs. Table VI-5 presents capital expenditures and research and development ("R&D") expenses as reported by the producing firms.

Table VI-5
Biodiesel: Capital expenditures and R&D expenses of U.S. producers, 2014-16

Item	Calendar year		
	2014	2015	2016
	Capital expenditures (1,000 dollars)		
Total	108,569	53,242	77,993
	R&D expenses (1,000 dollars)		
Total	***	***	***

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

Generally speaking, firms stated that their capital expenditures were directed to improve product quality and operations, including capacity increases, cost reduction and productivity or efficiency improvements.[16] Responding firms indicated that the nature and focus of their R&D was to improve ***.[17]

ASSETS AND RETURN ON ASSETS

The Commission's questionnaire requested firms to provide data on their total assets associated with the production, warehousing, and sale of biodiesel. The value of total net assets decreased from 2014 to 2016 by approximately $159.9 million, equivalent to 9.3 percent. Firms stated that their assets fell due to several reasons, including return of capital to owner (i.e., owner distributions), reduced value of non-plant equipment such as cash and accounts receivable, and ***.[18]

The ratio of operating income to total net sales (operating margin) fell *** over the three yearly periods (depicted in table VI-1). As discussed earlier, the BTC outweighed other expenses and net income was generally positive for the industry as a whole although some firms continued to record losses. The effect of RINs and BTC was to reduce the operating loss margin in 2014 and 2015 and to increase the ratio of net income to total net assets in each of the three yearly periods. Table VI-6 presents data on the U.S. producers' total net assets as well as the two calculated ratios.

[16] U.S. producers' questionnaires, section III-14.
[17] U.S. producers' questionnaires ***, section III-14.
[18] U.S. producers' questionnaires, section III-13. ***.

Table VI-6
Biodiesel: U.S. producers' total assets, and the ratios of operating income or (loss) and net income or (loss) to total net assets, 2014-16

Firm	Calendar years			Calendar years		
	2014	2015	2016	2014	2015	2016
	Not including RINs			Including RINs		
	Total net assets (1,000 dollars)			Total net assets (1,000 dollars)		
Total net assets	1,714,822	1,674,514	1,554,948	1,714,822	1,674,514	1,554,948
	Ratio operating income/(loss) to net assets (percent)			Ratio operating income/(loss) to net assets (percent)		
Average	(12.6)	(17.4)	(57.9)	(4.7)	(5.5)	(37.0)
	Ratio net income/(loss) to net assets (percent)			Ratio net income/(loss) to net assets (percent)		
Average	9.1	3.5	0.4	17.0	15.4	21.3

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

CAPITAL AND INVESTMENT

The Commission requested U.S. producers of biodiesel to describe any actual or potential negative effects of imports of biodiesel from Argentina and Indonesia on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-7 tabulates the responses on actual and anticipated negative effects of imports on investment, growth, and development. Table VI-8 presents firms' narrative responses on actual and anticipated negative effects on investment, and growth and development of imports of biodiesel from Argentina and Indonesia.

Table VI-7
Biodiesel: Negative effects of imports from Argentina and Indonesia on investment, growth, and development since January 1, 2014 and anticipated negative effects of imports from Argentina and Indonesia

Item		No	Yes
Negative effects on investment[1]		3	21
	Cancellation, postponement, or rejection of expansion projects		14
	Denial or rejection of investment proposal		5
	Reduction in the size of capital investments		9
	Return on specific investments negatively impacted		13
	Other		3
Negative effects on investment differ by country		24	1
Negative effects on growth and development[2]		8	17
	Rejection of bank loans		6
	Lowering of credit rating		0
	Problem related to the issue of stocks or bonds		1
	Ability to service debt		1
	Other		11
Negative effects on growth differ by country[3]		24	1
Anticipated negative effects of imports[4]		2	23
Anticipated negative effects differ by country[5]		22	3

[1] The following firms responded "no" to this question: ***.
[2] The following firms responded "no" to this question: ***.
[3] ***.
[4] The following firms responded "no" to this question: ***.
[5] ***.

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

Actual negative effects

Table VI-8
Biodiesel: U.S. producers' narrative responses on actual and anticipated negative effects on investment, growth, and development since January 1, 2014

* * * * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

---

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

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

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

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

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

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

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

THE INDUSTRY IN ARGENTINA

The Commission issued foreign producers' or exporters' questionnaires to 12 firms believed to produce and/or export biodiesel from Argentina.[3] Usable questionnaire responses were received from 8 firms:[4] Cargill SACI,[5] Cofco Argentina SA ("Cofco"),[6] Explora SA ("Explora"),[7] LDC Argentina SA ("LDC Argentina"),[8] Oleaginosa Moreno Hermanos SA ("Oleaginosa"),[9] T6 Industrial SA ("T6 Industrial"),[10] Molinos Agro SA ("Molinos"),[11] and Vicentin SAIC ("Vicentin").[12] These firms' exports to the United States accounted for approximately *** percent of U.S. imports of biodiesel from Argentina during 2014-2016. Table VII-1 presents information on the biodiesel operations of the responding producers and exporters in Argentina.

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

[4] As discussed in part IV, Cargill, Cofco, LDC Argentina, Aceiteria General Deheza SA ("Aceiteria"), Bunge Argentina SA ("Bunge"), Molinos, Renova SA and Vicentin are member companies of Cámara Argentina de Biocombustiles (CARBIO). These companies participated in the staff conference and filed a joint postconference brief under CARBIO. Renova SA has a ***. Aceitera and Bunge have a *** with T6 Industrial. Aceitera and Bunge ***. Aceitera and Bunge ***. All three companies' production, capacity and trade data is presented in T6 Industrial's questionnaire response.

[5] Cargill SACI reported that biodiesel represented *** percent of its total sales in its most recent fiscal year. Cargill SACI reported ***.

[6] Cofco was formerly known as Noble Argentina SA. It reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[7] Explora did not report any exports of biodiesel to the United States from 2014 to 2016.

[8] LDC Argentina SA reported that biodiesel represented *** percent of its total sales in its most recent fiscal year. LDC Argentina reported ***.

[9] Oleaginosa reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[10] T6 Industrial reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[11] Molinos has reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[12] Vicentin SAIC reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

Table VII-1
Biodiesel: Summary data for producers in Argentina, 2016

Firm	Production (1,000 gallons)	Share of reported production (percent)	Exports to the United States (1,000 gallons)	Share of reported exports to the United States (percent)	Total shipments (1,000 gallons)	Share of firm's total shipments exported to the United States (percent)
Cargill	***	***	***	***	***	***
Cofco	***	***	***	***	***	***
Explora	***	***	***	***	***	***
LDC	***	***	***	***	***	***
Molinos Agro	***	***	***	***	***	***
Oleaginosa Moreno Hermanos	***	***	***	***	***	***
T6 Industrial	***	***	***	***	***	***
Vicentin SAIC	***	***	***	***	***	***
Total	450,411	100.0	392,277	100.0	458,483	85.6

Source: Compiled from data submitted in response to Commission questionnaires

Changes in operations

Three Argentine producers reported changes in operations since January 1, 2014. T6 Industrial SA and Cargill SAC experienced a ***. According to Cargill SAIC, ***. Molinos Agro's ***.

Operations on biodiesel

When asked about anticipated changes in the character of its operations or the organization of its future biodiesel production, T6 Industrial reported that it ***.

The Commission also asked Argentine producers to identify any production constraints. Most responding producers reported that production is ***. Several responding producers note that ***. Producer *** reported that ***.

Table VII-2 presents data on the biodiesel industry in Argentina from responding producers.

Table VII-2
Biodiesel: Data on industry in Argentina, 2014-16, and projection calendar years 2017 and 2018

Item	Actual experience			Projections	
	Calendar year				
	2014	2015	2016	2017	2018
	Quantity (1,000 gallons)				
Capacity	678,713	653,492	653,492	653,492	642,144
Production:					
from soybeans	479,779	259,686	450,411	442,311	492,247
from palm	0	0	0	0	0
from other inputs	0	0	0	0	0
from all inputs	479,779	259,686	450,411	442,311	492,247
End-of-period inventories	12,923	14,536	10,723	7,974	7,484
Shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Commercial shipments	***	***	***	***	***
Subtotal, home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	480,240	259,881	458,483	445,059	493,482
	Ratios and shares (percent)				
Share of production:					
from soybeans	100.0	100.0	100.0	100.0	100.0
from palm	0.0	0.0	0.0	0.0	0.0
from other inputs	0.0	0.0	0.0	0.0	0.0
from all inputs	100.0	100.0	100.0	100.0	100.0
Capacity utilization	70.7	39.7	68.9	67.7	76.7
Inventories/production	2.7	5.6	2.4	1.8	1.5
Inventories/total shipments	2.7	5.6	2.3	1.8	1.5
Share of shipments:					
Home market shipments:					
Internal consumption/ transfers	***	***	***	***	***
Home market shipments	***	***	***	***	***
Subtotal, home market shipments	***	***	***	***	***
Export shipments to:					
United States	***	***	***	***	***
All other markets	***	***	***	***	***
Total exports	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

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

Argentine producers' production capacity decreased from 678.7 million gallons in 2014 to 653.5 million gallons in 2015, and remained unchanged in 2016. Capacity in 2017 is projected to stay the same but is expected to decrease by 1.7 percent in 2018. Fluctuating year to year, producers' production decreased from 479.8 million gallons in 2014 to 259.7 million gallons in 2015, and then increased to 450.4 million gallons in 2016 for an overall decrease of 6.1 percent. Cofco and Vicentin reported that ***.[13] Production is projected to decrease by 1.8 percent in 2017 and to be 9.3 percent greater in 2018 relative to 2016. Capacity utilization ranged from 39.7 percent to 70.7 percent during 2014-16.

Argentine producers' home market shipments decreased from *** gallons in 2014 to *** gallons in 2016, a decrease of *** percent. It is projected to decline by *** percent in 2017 and remain unchanged from 2017 to 2018. Home market shipments accounted for *** percent to *** percent of total shipments during 2014-2016. According to Vicentin, the low volume of home market commercial shipments relative to export shipments is attributable to ***.

In 2014, Argentine export shipments were largely destined for non-U.S. markets, which accounted for *** percent of all export shipments. However, in 2015 and 2016, the majority of export shipments went to the U.S. market, which accounted for *** percent to *** percent of all export shipments during that period. Exports to the United States increased from *** gallons in 2014 to *** million gallons in 2016; the majority of the increase occurred from 2015 to 2016. Cofco and Vicentin noted that the increase is attributed to ***.[14]

Exports to the United States is projected to decrease by *** percent in 2017 and by *** percent from 2017 to 2018. Exports to non-U.S. markets, on the other hand, is projected to increase by *** percent in 2017 and by *** percent from 2017 to 2018. Several responding producers noted that their projections for exports to non-U.S. markets are based on ***.

To qualify under the RFS is a lengthy and cumbersome process that can take from six months to a year to complete.[15] The certification process involves a qualifying third party engineer conducting a full engineering study against an extensive set of criteria. The engineer then drafts a report, which has to be processed by the EPA.[16] In order for qualifying soybean-based biomass (including biodiesel) to remain compliant with EPA regulations, an Argentine producer must continuously abide by the EPA's extensive tracking requirements. These tracking programs require an independent third-party auditor to conduct an annual survey of the entire biofuel supply chain, from soybean production through intermediate processing, to biodiesel production.[17] CARBIO's current certification scheme was approved by the EPA in January 2015.[18]

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[13] ***, email message to USITC staff, April 12, 2017.
[14] ***, email message to USITC staff, April 12, 2017.
[15] Conference transcript, p. 94 (Cummings).
[16] Ibid.
[17] Respondent CARBIO's postconference brief, exh. 12.
[18] Ibid.

Alternative products

Responding Argentine firms did not produce other products on the same equipment and machinery used to produce biodiesel. No other products can be produced on the same equipment used to produce biodiesel.[19]

Exports

According to Global Trade Atlas ("GTA"), the leading export markets for biodiesel from Argentina are the United States, Spain, Peru, and British Territory NES. In 2016, the United States was the largest export market for biodiesel from Argentina, accounting for 91.2 percent of exports, followed by Peru, which accounted for 8.4 percent. In 2014, Spain and British Territory NES were larger markets than the United States, accounting for 31.0 and 18.6 percent of exports, respectively. However due to EU antidumping duties on biodiesel from Argentina, there were no exports to Spain or British Territory NES in 2016. Table VII-3 presents data on Argentine exports of biodiesel.

[19] Argentine producers' questionnaire responses, section II-5.

Table VII-3
Biodiesel: Argentine exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Quantity (1,000 gallons)		
Argentina exports to the United States	53,384	177,179	442,839
Argentina exports to other major destination markets.--			
Peru	74,269	49,050	40,624
Panama	0	3,036	2,030
Spain	148,082	1,866	0
British Territory NES	88,491	4,179	0
United Kingdom	82,509	0	0
Cote d Ivoire	8,956	0	0
Australia	7,987	0	0
Netherlands	7,463	0	0
All other destination markets	5,828	0	0
Total Argentina exports	476,969	235,311	485,493
	Value (1,000 dollars)		
Argentina exports to the United States	140,823	385,220	1,138,019
Argentina exports to other major destination markets.--			
Peru	203,832	99,159	97,284
Panama	0	6,733	4,257
Spain	396,576	4,625	0
British Territory NES	247,963	9,871	0
United Kingdom	229,326	0	0
Cote d Ivoire	25,530	0	0
Australia	22,680	0	0
Netherlands	19,564	0	0
All other destination markets	16,430	0	0
Total Argentina exports	1,302,725	505,609	1,239,560

Table continued on the next page

Table VII-3--Continued
Biodiesel: Argentine exports by destination market, 2014-16

Destination market	Calendar year		
	2014	2015	2016
	Unit value (dollars per gallons)		
Argentina exports to the United States	2.64	2.17	2.57
Argentina exports to other major destination markets.--			
Peru	2.74	2.02	2.39
Panama	---	2.22	2.10
Spain	2.68	2.48	---
British Territory NES	2.80	2.36	---
United Kingdom	2.78	---	---
Cote d Ivoire	2.85	---	---
Australia	2.84	---	---
Netherlands	2.62	---	---
All other destination markets	2.82	---	---
Total Argentina exports	2.73	2.15	2.55
	Share of quantity (percent)		
Argentina exports to the United States	11.2	75.3	91.2
Argentina exports to other major destination markets.--			
Peru	15.6	20.8	8.4
Panama	---	1.3	0.4
Spain	31.0	0.8	---
British Territory NES	18.6	1.8	---
United Kingdom	17.3	---	---
Cote d Ivoire	1.9	---	---
Australia	1.7	---	---
Netherlands	1.6	---	---
All other destination markets	1.2	---	---
Total Argentina exports	100.0	100.0	100.0

Source: Official Argentina export statistics under HS subheading 3826.00 as reported by Argentina National Institute of Statistics & Census (INDEC) in the IHS/GTA database, accessed April 2, 2017.

THE INDUSTRY IN INDONESIA

The Commission issued foreign producers' or exporters' questionnaires to 7 firms believed to produce and/or export biodiesel from Indonesia.[20] Usable questionnaire responses were received from 4 firms: PT Wilmar Bioenergi Indonesia ("Wilmar"),[21] PT Musim Mas ("Musim Mas"),[22] PT Permata Hijau Palm Oleo ("Permata"),[23] and PT Pelita Agung Agrindustri ("Pelita").[24] These firms' exports to the United States accounted for100.0 percent the U.S. imports of biodiesel from Indonesia during 2014-2016. Table VII-4 presents information on the biodiesel operations of the responding producers and exporters in Indonesia.

Table VII-4
Biodiesel: Summary data for producers in Indonesia, 2016

* * * * * * *

Changes in operations

Wilmar and Musim Mas reported several operational and organizational changes since January 1, 2014. Wilmar experienced ***. Musim Mas experienced ***. Musim Mas also reported that ***.

Operations on biodiesel

When asked about production constraints, Wilmar noted that ***. Wilmar also reported that ***.

Indonesian biodiesel cannot generate RINs under the RFS program since it does not meet the program's minimum greenhouse gas reduction threshold.[25] However, the EPA grandfathered volume from two Indonesian production facilities (one owned by Wilmar and the other by Musim Mas) to continue supplying the U.S. market.[26] These facilities were grandfathered based on the identification of certain RFS-qualifying palm plantations and processing facilities that have been operating prior to December 19, 2007.[27] In order to remain

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

[21] Wilmar reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[22] Musim Mas reported that biodiesel represented *** percent of its total sales in its most recent fiscal year.

[23] Permata *** to the United States from 2014 to 2016.

[24] Pelita *** to the United States from 2014 to 2016.

[25] Respondents Wilmar, Wilmar North America, and Musim Mas' postconference brief, exh. 2.

[26] Conference transcript, pp. 46-47 (Cummings). Respondents Wilmar, Wilmar North America, and Musim Mas' postconference brief, p. 4.

[27] Respondents Wilmar, Wilmar North America, and Musim Mas' postconference brief, p. 4.

compliant with EPA regulations, Wilmar and Musim Mas must be able to trace and audit each truckload of palm fruit from the plantation to the processing facilities. This regulatory framework was in place during 2014-2016.

Table VII-5 presents data on the biodiesel industry in Indonesia from responding producers. Table VII-6 presents production capacity, production, and capacity utilization data for EPA grandfathered[28] and non-grandfathered facilities[29].

Table VII-5
Biodiesel: Data on industry in Indonesia, 2014-16, and projection calendar years 2017 and 2018

* * * * * * *

Table VII-6
Biodiesel: Data on grandfathered and non-grandfathered production capacity, production and capacity utilization, 2014-16, and projection calendar years 2017 and 2018

* * * * * * *

Non-grandfathered production capacity increased from *** gallons in 2014 to *** gallons in 2016; the majority of the increase occurred from 2015 to 2016. Grandfathered capacity has remained constant at *** gallons. Non-grandfathered capacity is projected to increase by *** percent in 2017 and by *** percent from 2017 to 2018 while grandfathered capacity is projected to be unchanged. Wilmar and Musim Mas' non-grandfathered production fluctuated from year to year, decreasing from *** gallons in 2014 to *** gallons in 2015, and then increasing to *** gallons in 2016 for an overall decrease of *** percent. Wilmar reported that ***. Wilmar noted that its palm methyl ester production *** from 2014 to 2015. Grandfathered production also fluctuated from year to year. It decreased from *** gallons in 2014 to *** gallons in 2015 and then increased to *** gallons in 2016 for an overall increase of *** percent. The minimal change in grandfathered production is due to an increase in Wilmar's production being offset by an equivalent decrease in Musim Mas' production.[30] Non-grandfathered production is projected to be slightly higher than in 2017 and to increase by *** percent from 2017 to 2018. Grandfathered production, on the other hand, is projected to decrease by *** percent in 2017 and to increase slightly from 2017 to 2018. Wilmar projected ***.[31]

Fluctuating from year to year, capacity utilization of grandfathered facilities decreased from *** percent in 2014 to *** percent in 2015 and then increased to *** percent in 2016 for

[28] Wilmar and Musim Mas account for 100 percent of the EPA grandfathered volume that is certified to produce biodiesel that is eligible to generate D6 RINs under the RFS program upon importation into the U.S market.

[29] Table includes capacity and production data for only Wilmar and Musim Mas. These firms account for a large majority of non-grandfathered capacity and production during 2014-2016.

[30] ***, email message to Commission staff, April 26, 2017. ***, email message to USITC staff, April 25, 2017.

[31] ***, email message to Commission staff, April 25, 2017.

an overall increase of *** percentage points. Capacity utilization of their non-grandfathered facilities also fluctuated year to year, decreasing from *** percent in 2014 to *** percent in 2015 and then increasing to *** percent in 2016 for an overall decrease of *** percentage points.

Indonesian producers' home market shipments fluctuated year to year, decreasing from *** gallons in 2014 to *** gallons in 2015, and then increasing to *** gallons in 2016, an overall increase of *** percent. Home market shipments were over five times greater than exports to the United States. Home market shipments are projected to increase in 2017 by *** percent and increase by *** percent from 2017 to 2018.

In 2014, Indonesian producers' export shipments were largely destined for non-U.S markets, which accounted for *** percent of export shipments. However, in 2015 and 2016, the majority of export shipments went to the United States, accounting for *** percent to *** percent of export shipments. Exports to the United States increased from *** gallons in 2014 to *** gallons in 2016, an increase of *** percent. Respondents attribute the increase in 2015 to a decline in the price of petro diesel heating oil in 2015 and the lapse of the tax credit, which made producing biodiesel less profitable and required an increase in subject imports to meet the RFS target.[32] They also note that subject import volume was depressed in 2014 due to forward buying in 2013 before the expiration of the tax credit.[33]

Projected export volumes to the United States for 2017 and 2018 are less than *** percent of what was shipped in 2016. Wilmar and Musim Mas note that this lower projection is due to the following factors: EPA regulations that effectively limit the volume of Indonesian exports that can generate D6 RINs; limits on the quantity of raw material inputs from the grandfathered plantations; and competing demands for the same raw materials from other markets.[34] Wilmar North America adds that it is often more economically viable for palm fruit be used in the production of other end products for non-U.S. markets than for the production of biodiesel.[35]

Alternative products

Responding Indonesian firms did not produce other products on the same equipment and machinery used to produce biodiesel and reported no other products can be produced on the same equipment used to produce biodiesel.[36]

[32] Conference transcript, p.56 (Szamosszegi). Respondents Wilmar, Wilmar North America, and Musim Mas' postconference brief, exh. 13.

[33] Conference transcript, p. 55. (Szamosszegi).

[34] Respondents Wilmar, Wilmar North America, and Musim Mas' postconference brief, p. 22.

[35] Conference transcript, p. 47 (Cummings).

[36] Indonesian producers' questionnaire responses, section II-5.

Exports

According to GTA, the leading export markets for biodiesel from Indonesia are the United States, Spain, Panama, Peru, China, Australia, the Netherlands, South Korea and Belgium. In 2015[37], the United States was the top export market for biodiesel from Indonesia, accounting for 73.1 percent of exports, followed by the Spain and Panama, each accounting for 9.3 and 5.3 percent, respectively. Table VII-7 presents data on Indonesian exports of biodiesel.

Table VII-7
Biodiesel: Indonesian exports by destination market, 2013-15

Destination market	Calendar year		
	2013	2014	2015
	Quantity (1,000 gallons)		
Indonesia exports to the United States	64,655	55,089	65,931
Indonesia exports to other major destination markets.--			
Spain	60,728	45,466	8,359
Panama	0	0	4,777
Peru	0	0	4,776
China	47,623	242,442	4,025
Australia	8,238	12,744	1,542
Netherlands	47,962	2,582	299
Korea South	6	0	269
Belgium	48	0	143
All other destination markets	276,320	54,024	109
Total Indonesia exports	505,579	412,349	90,230
	Value (1,000 dollars)		
Indonesia exports to the United States	182,493	149,526	146,996
Indonesia exports to other major destination markets.--			
Spain	166,789	122,143	14,504
Panama	0	0	8,593
Peru	0	0	7,768
China	137,106	672,812	11,495
Australia	24,790	37,200	3,394
Netherlands	146,240	11,167	955
Korea South	19	0	340
Belgium	256	0	466
All other destination markets	749,304	148,490	652
Total Indonesia exports	1,406,997	1,141,338	195,163

Table continued on the next page.

[37] 2015 was the most recent year for which Indonesian export data was available.

Table VII-7--Continued
Biodiesel: Indonesian exports by destination market, 2013-15

Destination market	Calendar year		
	2013	2014	2015
	Unit value (dollars per gallon)		
Indonesia exports to the United States	2.82	2.71	2.23
Indonesia exports to other major destination markets.--			
Spain	2.75	2.69	1.74
Panama	---	---	1.80
Peru	---	---	1.63
China	2.88	2.78	2.86
Australia	3.01	2.92	2.20
Netherlands	3.05	4.32	3.20
South Korea	3.36	---	1.27
Belgium	5.36	---	3.25
All other destination markets	2.71	2.75	5.99
Total Indonesia exports	2.78	2.77	2.16
	Share of quantity (percent)		
Indonesia exports to the United States	12.8	13.4	73.1
Indonesia exports to other major destination markets.--			
Spain	12.0	11.0	9.3
Panama	---	---	5.3
Peru	---	---	5.3
China	9.4	58.8	4.5
Australia	1.6	3.1	1.7
Netherlands	9.5	0.6	0.3
South Korea	0.0	---	0.3
Belgium	0.0	---	0.2
All other destination markets	54.7	13.1	0.1
Total Indonesia exports	100.0	100.0	100.0

Source: Official Indonesia export statistics under HS subheading 3826.00 as reported by Statistics Indonesia in the IHS/GTA database, accessed April 2, 2017.

SUBJECT COUNTRIES COMBINED

Table VII-8 presents summary data on biodiesel operations of the reporting subject producers in the subject countries.

Table VII-8
Biodiesel: Data on industry in subject countries, 2014-16, and projection calendar years 2017 and 2018

* * * * * * *

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-9 presents data on U.S. importers' reported end-of-period inventories of biodiesel. From 2014 to 2016, U.S. importers' inventories of U.S. imports from Argentina and Indonesia increased by *** gallons and *** gallons, respectively. The majority of inventories are held by *** and ***.

Table VII-9
Biodiesel: U.S. importers' end-of-period inventories, 2014-16

* * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of biodiesel from Argentina and Indonesia after December 31, 2016. Responding importers reported *** gallons of arranged imports from Argentina, but did *** from Indonesia. Wilmar North America, the largest U.S. importer of biodiesel from Indonesia, noted that ***.[38] Table VII-10 presents U.S. import shipments of biodiesel arranged for importation after December 31, 2016.

Table VII-10
Biodiesel: Arranged imports, January 2017 through December 2017

* * * * * * *

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

In November 2013, the European Union ("EU") imposed antidumping duties on biodiesel from Argentina and Indonesia. In response to this measure, CARBIO and the Argentine Foreign Ministry filed a dispute in front of the WTO and the EU General Court. On September 15, 2016, the EU General Court annulled the EU antidumping regulation imposing the duties and on October 6, 2016, the WTO Appellate Body ruled that the EU violated the Anti-Dumping Agreement by failing to calculate the cost of production of biodiesel on the basis of the records kept by the producers and exporters under investigation.[39] The Appellate Body also ruled that the EU acted inconsistently with Articles 3.1 and 3.4 of the Anti-Dumping Agreement when making their injury determination. On May 20, 2016, the EU appealed the WTO Appellate Body's decision on the order, which was unsuccessful.[40]

Following the appeal, the European Commission ("EC") initiated a review of the anti-dumping measures on biodiesel from Argentina and Indonesia. The scope of the review focuses on two issues: the cost of the production of the biodiesel from Argentina and Indonesia when

[38] Wilmar Oleo North America's importers' questionnaire response, "Supplement to Narratives", p. 2.
[39] Respondent CARBIO's postconference brief, p. 46.
[40] Petitioners' postconference brief, "Answers to Staff Questions", p. 2.

constructing its normal value, and the production capacity and capacity utilization in the context of establishing the impact of the dumped imports on the domestic industry. The European biodiesel industry has provided options for how the EC can comply with the WTO Appellate Body decision while maintaining its duties on Argentina and Indonesia. The agreed-upon reasonable period of time for the EU to come into compliance with the WTO Appellate Body's decision is August 10, 2017.[41] Regarding the European Central Court's decision, the European Council agreed to appeal the court's decision on November 24, 2016.[42] The appeal is still in the preliminary stages.

On October 26, 2016, Peru imposed antidumping duties on biodiesel from Argentina, effective for five years.[43] Under the ruling, duties have been assessed on the following companies: Cargill SACI ($134.70 per ton), Bunge ($141.40 per ton), and Cofco ($152.70 per ton).[44] Louis Dreyfus and all other Argentine companies were assessed the highest duty of $191.60 per ton.

INFORMATION ON NONSUBJECT COUNTRIES

In assessing whether the domestic industry is materially injured or threatened with material injury "by reason of subject imports," the legislative history states "that the Commission must examine all relevant evidence, including any known factors, other than the dumped or subsidized imports, that may be injuring the domestic industry, and that the Commission must examine those other factors (including non-subject imports) 'to ensure that it is not attributing injury from other sources to the subject imports.'"[45]

The Industry in Canada

As of September 2016, there were *** Canadian biodiesel production facilities with a total annual capacity of *** gallons. The two largest facilities are *** with a production capacity of *** gallons and *** with a production capacity of *** gallons together accounting for *** percent of Canadian capacity.[46] Canadian facilities can use the various inputs that U.S. facilities can, but canola oil predominates as Canada is a large producer of canola oil.[47] Reportedly as of 2013–2014, "the majority of {Canadian} production was exported to the United States to take

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[41] Ibid.

[42] Ibid.

[43] Reuters, "Peru Imposes Anti-Dumping Tariffs on Biodiesel Imports from Argentina", http://www.reuters.com/article/us-peru-biodiesel-argentina-idUSKCN12Q2OD, accessed April 19, 2017.

[44] Ibid.

[45] *Mittal Steel Point Lisas Ltd. v. United States,* Slip Op. 2007-1552 at 17 (Fed. Cir. Sept. 18, 2008), quoting from Statement of Administrative Action on Uruguay Round Agreements Act, H.R. Rep. 103-316, Vol. I at 851-52; *see also Bratsk Aluminum Smelter v. United States,* 44 F. 3d 1369 (Fed. Cir. 2006).

[46] Biodiesel Magazine, "U.S. & Canada Biodiesel Map 2017," September 1, 2016.

[47] ***.

advantage of the blender's tax credit, while a higher volume of biodiesel was imported to meet the {Canadian} biodiesel mandate obligation."[48]

Other nonsubject countries

As of December 2014, Germany[49] had *** biodiesel production facilities with a production capacity of approximately *** gallons, and Korea had *** production facilities with a production capacity of *** gallons.[50]

[48] ***.

[49] The majority of German biodiesel exports went to the EU market.

[50] ***.

APPENDIX A

FEDERAL REGISTER NOTICES

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

Citation	Title	Link
82 FR 15541, March 29, 2017	*Biodiesel From Argentina and Indonesia: Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-03-29/pdf/2017-06151.pdf
82 FR 18423, April 19, 2017	*Biodiesel From Argentina and Indonesia: Initiation of Countervailing Duty Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-04-19/pdf/2017-07901.pdf
82 FR 18428, April 19, 2017	*Biodiesel From Argentina and Indonesia: Initiation of Less-Than-Fair-Value Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2017-04-19/pdf/2017-07900.pdf

APPENDIX B

CALENDAR OF THE PUBLIC STAFF CONFERENCE

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

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

Subject: Biodiesel from Argentina and Indonesia

Inv. Nos.: 701-TA-571-572 and 731-TA-1347-1348 (Preliminary)

Date and Time: April 13, 2017 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in Courtroom B (room 111), 500 E Street, SW., Washington, DC.

EMBASSY APPEARANCE:

The Embassy of Argentina
Washington, DC

Minister Pablo Rodriguez Brizuela, Economic and Commercial Section

OPENING REMARKS:

Respondents (**Matthew P. McCullough**, Curtis, Mallet-Prevost, Colt & Mosle LLP)
Petitioner (**Myles S. Getlan**, Cassidy Levy Kent (USA) LLP)

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

Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, DC
on behalf of

Cámara Argentina de Biocombustibles (CARBIO)
Aceitera General Deheza S.A.; Bunge Argentina S.A.;
Cargill S.A.C.I.; COFCO Argentina S.A.; LDC Argentina S.A.;
Molinos Agro S.A.; Oleaginosa Moreno Hermanos S.A.;
Vicentin S.A.I.C.

Daniel L. Porter)
James P. Durling) – OF COUNSEL
Matthew P. McCullough

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

White & Case LLP
Washington, DC
on behalf of

Louis Dreyfus Company Claypool Holdings ("LDC Claypool")
Louis Dreyfus Company Agricultural Industries LLC ("LDCAI")

Sean Doyle, President, LDC Claypool and LDCAI

Gregory Spak)
) – OF COUNSEL
Kristina Zissis)

Greenberg Traurig LLP
Washington, DC
on behalf of

BioSphere Fuels, LLC ("BioSphere")

Michael Whitney, Director of Renewable Fuels, BioSphere

Rosa S. Jeong) – OF COUNSEL

Akin Gump Strauss Hauer & Feld LLP
Washington, DC
on behalf of

Wilmar Oleo North America LLC ("Wilmar")

John Cummings, Director of Biodiesel, Wilmar

Thomas Rogers, Principal, Capital Trade Incorporated

Andrew Szamosszegi, Prinicipal, Capital Trade Incorporated

Bernd G. Janzen) – OF COUNSEL

Appleton Luff
Washington , DC
on behalf of

PT Musim Mas

Edmund Sim) – OF COUNSEL

In Support of the Imposition of
Antidumping and Countervailing Duty Orders:

Cassidy Levy Kent (USA) LLP
Washington, DC
on behalf of

The National Biodiesel Board Fair Trade Coalition

Anne Steckel, Vice President of Federal Affairs, National Biodiesel Board

Sandra Franco, Director of Regulatory Affairs and General Counsel, National Biodiesel Board

Dr. Robert Morton, Chairman, Newport Biodiesel, Inc.

Paul Soanes, President and Chief Executive Officer, RBF Port Neches LLC

Chad Stone, Chief Financial Officer, Renewable Energy Group, Inc.

Myles S. Getlan)
) – OF COUNSEL
Jack Levy)

REBUTTAL/CLOSING REMARKS:

Respondents (**Edmund Sim**, Appleton Luff)
Petitioner (**Myles S. Getlan**, Cassidy Levy Kent (USA) LLP)

APPENDIX C

SUMMARY DATA

Table C-1
Biodiesel: Summary data concerning the U.S. market, 2014-16
(Quantity=1,000 gallons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per gallons; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2014	2015	2016	2014-16	2014-15	2015-16
U.S. consumption quantity:						
Amount	1,391,848	1,509,185	2,194,657	57.7	8.4	45.4
Producers' share (fn1)	86.2	76.7	68.0	(18.2)	(9.5)	(8.6)
Importers' share (fn1):						
Argentina	3.4	13.0	20.1	16.7	9.7	7.0
Indonesia	3.7	4.7	5.0	1.4	1.0	0.4
Subject sources	7.0	17.7	25.1	18.1	10.7	7.4
Canada	5.3	3.9	4.6	(0.7)	(1.4)	0.8
All other sources	1.4	1.7	2.2	0.8	0.3	0.5
Nonsubject sources	6.8	5.6	6.9	0.1	(1.2)	1.3
All import sources	13.8	23.3	32.0	18.2	9.5	8.6
U.S. consumption value:						
Amount	4,642,437	4,101,798	5,787,485	24.7	(11.6)	41.1
Producers' share (fn1)	86.3	77.1	63.4	(22.9)	(9.2)	(13.7)
Importers' share (fn1):						
Argentina	3.2	12.8	22.7	19.5	9.5	10.0
Indonesia	3.4	4.5	5.3	1.8	1.0	0.8
Subject sources	6.6	17.2	28.0	21.3	10.6	10.8
Canada	5.3	3.9	5.9	0.6	(1.4)	2.0
All other sources	1.7	1.7	2.7	1.0	0.0	1.0
Nonsubject sources	7.1	5.7	8.6	1.6	(1.4)	3.0
All import sources	13.7	22.9	36.6	22.9	9.2	13.7
U.S. imports from:						
Argentina:						
Quantity	46,719	196,930	440,346	842.5	321.5	123.6
Value	149,116	523,190	1,314,492	781.5	250.9	151.2
Unit value	$3.19	$2.66	$2.99	(6.5)	(16.8)	12.4
Ending inventory quantity	***	***	***	***	***	***
Indonesia:						
Quantity	51,038	70,702	110,746	117.0	38.5	56.6
Value	159,371	182,913	304,255	90.9	14.8	66.3
Unit value	$3.12	$2.59	$2.75	(12.0)	(17.1)	6.2
Ending inventory quantity	***	***	***	***	***	***
Subject sources:						
Quantity	97,757	267,632	551,092	463.7	173.8	105.9
Value	308,487	706,102	1,618,747	424.7	128.9	129.3
Unit value	$3.16	$2.64	$2.94	(6.9)	(16.4)	11.3
Ending inventory quantity	***	***	***	***	***	***
Canada:						
Quantity	74,051	58,422	101,743	37.4	(21.1)	74.2
Value	246,745	160,681	340,884	38.2	(34.9)	112.1
Unit value	$3.33	$2.75	$3.35	0.6	(17.5)	21.8
Ending inventory quantity	***	***	***	***	***	***
All other sources:						
Quantity	19,948	25,952	48,685	144.1	30.1	87.6
Value	80,659	71,759	158,062	96.0	(11.0)	120.3
Unit value	$4.04	$2.77	$3.25	(19.7)	(31.6)	17.4
Ending inventory quantity	***	***	***	***	***	***
Nonsubject sources:						
Quantity	93,999	84,375	150,429	60.0	(10.2)	78.3
Value	327,404	232,440	498,947	52.4	(29.0)	114.7
Unit value	$3.48	$2.75	$3.32	(4.8)	(20.9)	20.4
Ending inventory quantity	***	***	***	***	***	***
All import sources:						
Quantity	191,756	352,007	701,521	265.8	83.6	99.3
Value	635,890	938,542	2,117,694	233.0	47.6	125.6
Unit value	$3.32	$2.67	$3.02	(9.0)	(19.6)	13.2
Ending inventory quantity	***	***	***	***	***	***
U.S. producers':						
Average capacity quantity	1,368,835	1,417,775	1,762,410	28.8	3.6	24.3
Production quantity	1,033,683	1,068,995	1,389,618	34.4	3.4	30.0
Capacity utilization (fn1)	75.5	75.4	78.8	3.3	(0.1)	3.4
U.S. shipments:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Export shipments:						
Quantity	***	***	***	***	***	***
Value	***	***	***	***	***	***
Unit value	***	***	***	***	***	***
Ending inventory quantity	31,408	47,184	39,781	26.7	50.2	(15.7)
Inventories/total shipments (fn1) (fn3)	3.0	4.5	2.8	(0.2)	1.5	(1.6)

Table continued on next page.

Table C-1--Continued
Biodiesel: Summary data concerning the U.S. market, 2014-16
(Quantity=1,000 gallons; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per gallons; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2014	2015	2016	2014-16	2014-15	2015-16
U.S. producers':						
Production workers	1,042	1,154	1,336	28.2	10.7	15.8
Hours worked (1,000s)	2,250	2,422	2,822	25.4	7.6	16.5
Wages paid ($1,000)	65,889	74,801	85,483	29.7	13.5	14.3
Hourly wages (dollars)	$29.28	$30.88	$30.29	3.4	5.5	(1.9)
Productivity (gallons per hour)	459.4	441.4	492.4	7.2	(3.9)	11.6
Unit labor costs	$0.06	$0.07	$0.06	(3.5)	9.8	(12.1)
Net sales excluding independent RIN sales:						
Quantity	1,038,872	1,051,285	1,397,658	34.5	1.2	32.9
Value	3,365,327	2,706,141	3,106,706	(7.7)	(19.6)	14.8
Unit value	$3.24	$2.57	$2.22	(31.4)	(20.5)	(13.6)
Cost of goods sold (COGS)	3,433,414	2,837,650	3,833,617	11.7	(17.4)	35.1
Gross profit or (loss)	(68,087)	(131,509)	(726,911)	967.6	93.1	452.7
SG&A expenses	147,410	160,509	174,109	18.1	8.9	8.5
Operating income or (loss)	(215,497)	(292,018)	(901,020)	318.1	35.5	208.5
Net income or (loss)	156,272	57,790	5,509	(96.5)	(63.0)	(90.5)
Capital expenditures	108,569	53,242	77,993	(28.2)	(51.0)	46.5
Unit COGS	$3.30	$2.70	$2.74	(17.0)	(18.3)	1.6
Unit SG&A expenses	$0.14	$0.15	$0.12	(12.2)	7.6	(18.4)
Unit operating income or (loss)	$(0.21)	$(0.28)	$(0.64)	210.8	33.9	132.1
Unit net income or (loss)	$0.15	$0.05	$0.00	(97.4)	(63.5)	(92.8)
COGS/sales (fn1)	102.0	104.9	123.4	21.4	2.8	18.5
Operating income or (loss)/sales (fn1)	(6.4)	(10.8)	(29.0)	(22.6)	(4.4)	(18.2)
Net income or (loss)/sales (fn1)	4.6	2.1	0.2	(4.5)	(2.5)	(2.0)
Net sales including independent RIN sales:						
Quantity	1,038,872	1,051,285	1,397,658	34.5	1.2	32.9
Value	3,501,050	2,906,568	3,433,118	(1.9)	(17.0)	18.1
Unit value	$3.37	$2.76	$2.46	(27.1)	(18.0)	(11.2)
Cost of goods sold (COGS)	3,433,414	2,837,650	3,833,617	11.7	(17.4)	35.1
Gross profit or (loss)	67,636	68,918	(400,499)	fn2	1.9	fn2
SG&A expenses	147,410	160,509	174,109	18.1	8.9	8.5
Operating income or (loss)	(79,774)	(91,591)	(574,608)	620.3	14.8	527.4
Net income or (loss)	291,995	258,217	331,921	13.7	(11.6)	28.5
Capital expenditures	108,569	53,242	77,993	(28.2)	(51.0)	46.5
Unit COGS	$3.30	$2.70	$2.74	(17.0)	(18.3)	1.6
Unit SG&A expenses	$0.14	$0.15	$0.12	(12.2)	7.6	(18.4)
Unit operating income or (loss)	$(0.08)	$(0.09)	$(0.41)	435.4	13.5	371.9
Unit net income or (loss)	$0.28	$0.25	$0.24	(15.5)	(12.6)	(3.3)
COGS/sales (fn1)	98.1	97.6	111.7	13.6	(0.4)	14.0
Operating income or (loss)/sales (fn1)	(2.3)	(3.2)	(16.7)	(14.5)	(0.9)	(13.6)
Net income or (loss)/sales (fn1)	8.3	8.9	9.7	1.3	0.5	0.8

Notes:

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Undefined.
fn3.--Based on quesitonniare data.

Source: Compiled from data submitted in response to Commission questionnaires, U.S. Energy Information Administration | Monthly Biodiesel Production Report, and official U.S. import statistics using HTS statistical reporting numbers 3826.00.1000 and 3826.00.3000, accessed April 2, 2017.

APPENDIX D

U.S. PRODUCERS' AND U.S. IMPORTERS' RESPONSES ON B-99 BLENDING

Table D-1 presents the responses of U.S. producers and U.S. importers in rating the complexity, intensity, and importance of the firms' B-99 blending operation (blending of B-100 biodiesel with other non-biodiesel fuels) as they relate to the firms' overall biodiesel operations.[1]

Table D-1
Biodiesel: U.S. producers' and U.S. importers' assessment of complexity and importance in B-99 blending operations

Source	Complexity rating					Average rating for responding firms
	Low 1	2	3	4	High 5	
	Number of firms (count)					
U.S. producers	22	1	1	0	1	1.280
U.S. importers	4	2	4	2	0	2.333

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

The Commission requested U.S. producers and U.S. importers to describe, in regards to the firm's B-99 blending operations, the nature of extent of capital investments; technical expertise; value added; employment; quantity, type, and source of parts; and cost and activities. Tables D-2 and D-3 present the responses of U.S. producers and U.S. importers, respectively.

Table D-2
Biodiesel: U.S. producers' narratives on the nature of extent of activities involved in blending B99, since January 1, 2014

* * * * * * *

Table D-3
Biodiesel: U.S. importers' narratives on the nature of extent of activities involved in blending B99, since January 1, 2014

* * * * * * *

[1] The U.S. producer (***) that provided a rating of 5 noted that blending is more important than complex or intense primarily for economic reasons. ***. Email from ***, April 12, 2017.

APPENDIX E

NONSUBJECT COUNTRY PRICE DATA

Four importers reported price data for imports from Canada for products 1-3. Price data reported by these firms accounted for 95.9 percent of U.S. commercial shipments of imports from Canada. These price items and accompanying data are comparable to those presented in tables V-3 to V-5. Price and quantity data for Canada are shown in tables E-1 to E-3 and in figure E-1 to E-3 (with domestic and subject sources).

One importer, ***[1], provided usable import purchase cost data for imports for its own use of product 1, although it did not report cost data for all quarters (table E-4 and figure E-4). Cost data reported by this firm accounted for very little (less than 0.01 percent) of imports from Canada in 2016.

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 29 instances and higher in 7 instances. In comparing nonsubject country pricing data with subject country pricing data, prices for product imported from Canada were lower than prices for product imported from subject countries in 25 instances and higher in 33 instances. A summary of price differentials is presented in table E-5.

[1] *** did not provide further information as to the reasons or benefits of directly importing biodiesel from Canada.

Table E-1

Biodiesel: Weighted-average f.o.b. prices and quantities of imported product 1,[1] by quarters, January 2014-December 2016

Period	United States		Canada	
	Price (dollars per gallon)	Quantity (gallons)	Price (dollars per gallon)	Quantity (gallons)
2014:				
Jan.-Mar.	3.43	88,219,709	***	***
Apr.-Jun.	3.47	113,129,250	***	***
Jul.-Sep.	3.57	129,523,925	***	***
Oct.-Dec.	3.06	98,221,993	***	***
2015:				
Jan.-Mar.	2.75	80,247,646	***	***
Apr.-Jun.	3.03	118,277,586	***	***
Jul.-Sep.	2.88	115,198,531	***	***
Oct.-Dec.	2.45	97,958,732	***	***
2016:				
Jan.-Mar.	2.64	83,852,210	***	***
Apr.-Jun.	3.04	105,052,612	***	***
Jul.-Sep.	3.08	95,149,938	***	***
Oct.-Dec.	3.12	92,017,903	***	***

[1] Product 1: B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Table E-2

Biodiesel: Weighted-average f.o.b. prices and quantities of imported product 2,[1] by quarters, January 2014-December 2016

Period	United States		Canada	
	Price (dollars per gallon)	Quantity (gallons)	Price (dollars per gallon)	Quantity (gallons)
2014:				
Jan.-Mar.	3.46	65,899,192	***	***
Apr.-Jun.	3.57	72,733,492	***	***
Jul.-Sep.	3.58	90,987,912	***	***
Oct.-Dec.	3.06	133,588,714	***	***
2015:				
Jan.-Mar.	2.75	61,489,498	***	***
Apr.-Jun.	2.93	113,636,503	***	***
Jul.-Sep.	2.80	109,425,951	***	***
Oct.-Dec.	2.41	110,306,754	***	***
2016:				
Jan.-Mar.	2.09	117,411,827	***	***
Apr.-Jun.	2.17	156,439,728	***	***
Jul.-Sep.	2.30	179,363,783	***	***
Oct.-Dec.	2.42	188,356,940	***	***

[1] Product 2: B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Table E-3

Biodiesel: Weighted-average f.o.b. prices and quantities of imported product 3,[1] by quarters, January 2014-December 2016

Period	United States		Canada	
	Price (dollars per gallon)	Quantity (gallons)	Price (dollars per gallon)	Quantity (gallons)
2014:				
Jan.-Mar.	***	***	***	***
Apr.-Jun.	2.66	39,914,485	***	***
Jul.-Sep.	2.73	46,429,710	***	***
Oct.-Dec.	2.08	39,459,522	***	***
2015:				
Jan.-Mar.	***	***	***	***
Apr.-Jun.	1.82	44,060,677	***	***
Jul.-Sep.	1.51	59,028,223	***	***
Oct.-Dec.	1.52	45,671,091	***	***
2016:				
Jan.-Mar.	0.80	38,626,233	***	***
Apr.-Jun.	1.15	65,187,312	***	***
Jul.-Sep.	0.97	69,702,988	***	***
Oct.-Dec.	1.03	60,533,547	***	***

[1] Product 3: B99 (biodiesel blend containing 99.0% - 99.9% biodiesel), sold without RINs.

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

Figure E-1

Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarters, January 2014-December 2016

* * * * * * *

Figure E-2

Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by quarters, January 2014-December 2016

* * * * * * *

Figure E-3

Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by quarters, January 2014-December 2016

* * * * * * *

Table E-4

Biodiesel: Weighted-average f.o.b. prices and quantities of domestic product and landed duty paid costs of imported product 1,[1] by quarters, January 2014-December 2016

Period	United States		Canada (cost)	
	Price (dollars per gallon)	Quantity (gallons)	Price (dollars per gallon)	Quantity (gallons)
2014:				
Jan.-Mar.	3.43	88,219,709	--	0
Apr.-Jun.	3.47	113,129,250	--	0
Jul.-Sep.	3.57	129,523,925	--	0
Oct.-Dec.	3.06	98,221,993	--	0
2015:				
Jan.-Mar.	2.75	80,247,646	--	0
Apr.-Jun.	3.03	118,277,586	***	***
Jul.-Sep.	2.88	115,198,531	***	***
Oct.-Dec.	2.45	97,958,732	***	***
2016:				
Jan.-Mar.	2.64	83,852,210	***	***
Apr.-Jun.	3.04	105,052,612	***	***
Jul.-Sep.	3.08	95,149,938	***	***
Oct.-Dec.	3.12	92,017,903	***	***

[1] Product 1: B100 (pure biodiesel), including RIN value when sold as 1.5 RINs per gallon.

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

Figure E-4

Biodiesel: Weighted-average f.o.b. prices and quantities of domestic and landed duty paid cost of imported product 1, by quarters, January 2014-December 2016

* * * * * * *

Table E-5

Product: Summary of underselling/(overselling), by country, January 2014-December 2016

Comparison	Total number of comparisons	Nonsubject lower than the comparison source		Nonsubject higher than the comparison source	
		Number of quarters	Quantity (gallons)	Number of quarters	Quantity (gallons)
Nonsubject vs United States:					
Canada vs. United States	36	29	***	7	***
Nonsubject vs subject countries:					
Canada vs. Argentina	31	20	***	11	***
Canada vs. Indonesia	27	6	***	21	***
Canada vs. Subject sources	34	16	83,599,017	18	112,392,409

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

APPENDIX F

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

Table F-1 presents monthly apparent consumption data for biodiesel in the United States from January 2014 through December 2016. Table F-2 and figure F-1 present monthly U.S. market shares from January 2014 through December 2016.

Table F-1
Biodiesel: Monthly apparent U.S. consumption, January 2014 through December 2016

Item	U.S. producers' U.S. shipments	U.S. imports from.--			Apparent U.S. consumption
		Subject sources	Nonsubject sources	All import sources	
	Quantity (1,000 gallons)				
2014.--					
January	60,372	0	9,637	9,637	70,009
February	66,078	3,580	3,903	7,483	73,561
March	94,178	0	9,950	9,950	104,128
April	80,038	0	6,563	6,563	86,601
May	100,264	0	4,617	4,617	104,881
June	99,954	4,474	3,744	8,218	108,172
July	108,560	12,616	8,130	20,746	129,306
August	114,912	13,508	10,599	24,107	139,019
September	112,288	10,486	4,346	14,832	127,120
October	119,320	16,816	8,960	25,776	145,096
November	98,270	21,638	15,492	37,130	135,400
December	145,858	14,639	8,057	22,695	168,553
2015.--					
January	60,076	12,681	1,867	14,548	74,624
February	69,034	15,776	4,888	20,664	89,698
March	83,978	12,148	5,685	17,833	101,811
April	96,920	11,961	4,178	16,139	113,059
May	110,290	3,300	11,861	15,161	125,451
June	114,080	21,598	6,778	28,376	142,456
July	115,290	33,786	15,845	49,631	164,921
August	109,450	31,619	7,807	39,426	148,876
September	104,600	34,469	4,557	39,026	143,626
October	97,238	27,895	8,431	36,327	133,565
November	88,808	22,507	7,016	29,523	118,331
December	107,414	39,891	5,461	45,352	152,766
2016.--					
January	89,236	2,041	6,838	8,879	98,115
February	97,690	5,956	3,189	9,144	106,834
March	116,172	16,012	11,284	27,296	143,468
April	115,668	31,014	9,477	40,491	156,159
May	120,972	41,434	8,541	49,976	170,948
June	130,760	52,663	12,044	64,707	195,467
July	128,500	59,504	11,173	70,677	199,177
August	140,172	61,126	15,783	76,910	217,082
September	132,700	60,242	14,583	74,824	207,524
October	136,010	64,359	11,582	75,941	211,951
November	129,616	75,995	15,836	91,831	221,447
December	155,640	80,745	30,100	110,845	266,485

Source: EIA and official U.S. import statistics.

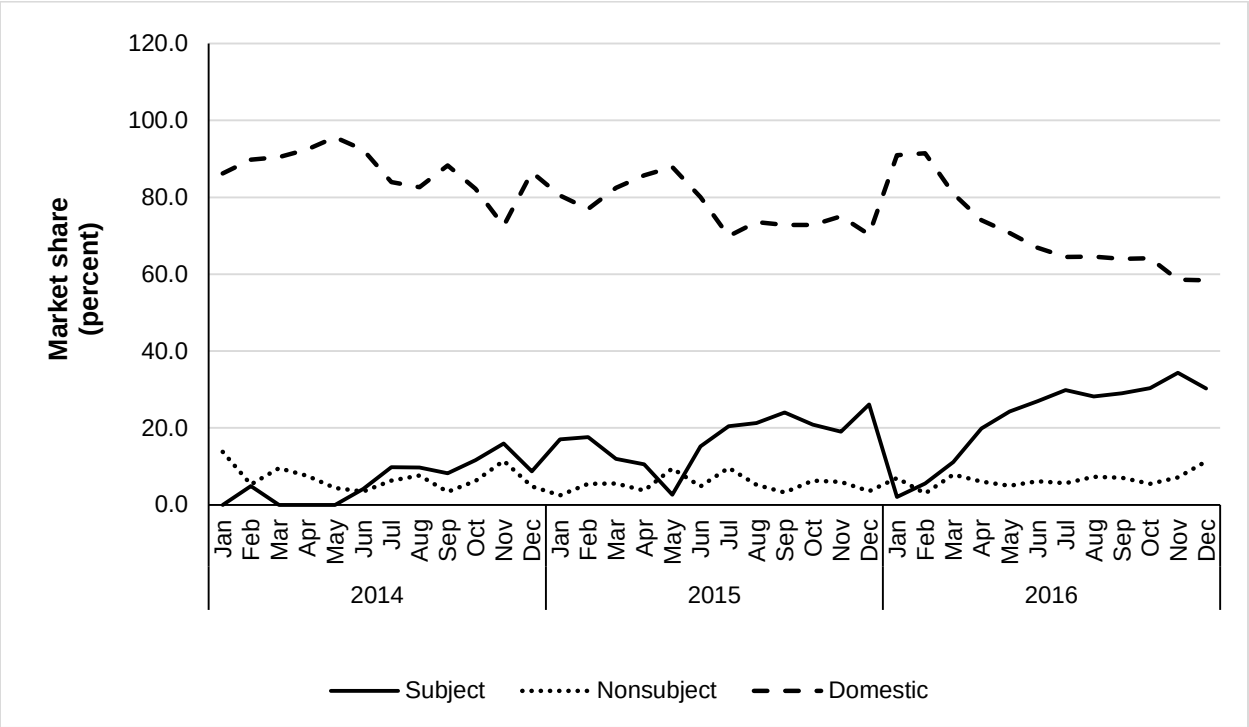
Table F-2

Biodiesel: Monthly market shares, January 2014 through December 2016

Item	U.S. producers' U.S. shipments	U.S. imports from.--			Apparent U.S. consumption
		Subject sources	Nonsubject sources	All import sources	
	Share of quantity (percent)				
2014.--					
January	86.2	0.0	13.8	13.8	100.0
February	89.8	4.9	5.3	10.2	100.0
March	90.4	0.0	9.6	9.6	100.0
April	92.4	0.0	7.6	7.6	100.0
May	95.6	0.0	4.4	4.4	100.0
June	92.4	4.1	3.5	7.6	100.0
July	84.0	9.8	6.3	16.0	100.0
August	82.7	9.7	7.6	17.3	100.0
September	88.3	8.2	3.4	11.7	100.0
October	82.2	11.6	6.2	17.8	100.0
November	72.6	16.0	11.4	27.4	100.0
December	86.5	8.7	4.8	13.5	100.0
2015.--					
January	80.5	17.0	2.5	19.5	100.0
February	77.0	17.6	5.4	23.0	100.0
March	82.5	11.9	5.6	17.5	100.0
April	85.7	10.6	3.7	14.3	100.0
May	87.9	2.6	9.5	12.1	100.0
June	80.1	15.2	4.8	19.9	100.0
July	69.9	20.5	9.6	30.1	100.0
August	73.5	21.2	5.2	26.5	100.0
September	72.8	24.0	3.2	27.2	100.0
October	72.8	20.9	6.3	27.2	100.0
November	75.1	19.0	5.9	24.9	100.0
December	70.3	26.1	3.6	29.7	100.0
2016.--					
January	91.0	2.1	7.0	9.0	100.0
February	91.4	5.6	3.0	8.6	100.0
March	81.0	11.2	7.9	19.0	100.0
April	74.1	19.9	6.1	25.9	100.0
May	70.8	24.2	5.0	29.2	100.0
June	66.9	26.9	6.2	33.1	100.0
July	64.5	29.9	5.6	35.5	100.0
August	64.6	28.2	7.3	35.4	100.0
September	63.9	29.0	7.0	36.1	100.0
October	64.2	30.4	5.5	35.8	100.0
November	58.5	34.3	7.2	41.5	100.0
December	58.4	30.3	11.3	41.6	100.0

Source: Derived from table F-1.

Figure F-1
Biodiesel: Monthly U.S. imports by source, January 2014 through December 2016



Source: Table F-2.